RISO

RISOGRAPH GR2710

USER'S GUIDE

If the optional ADF Unit is installed . . .

Please remove pages 7-10, 15-16, 21-26, 35-36 and 75-76 and replace them with the corresponding pages located at the back of this User's Guide.

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Register Sheet for Memory Feature

Welcome to the RISOgraph GR2710

Thank you for purchasing a RISOgraph GR2710, which combines the clear reproduction of a printing machine with the convenient functions of a copier.

With its easy-to-read digital display and key entry for most procedures, this equipment has been specially designed for simple operation.

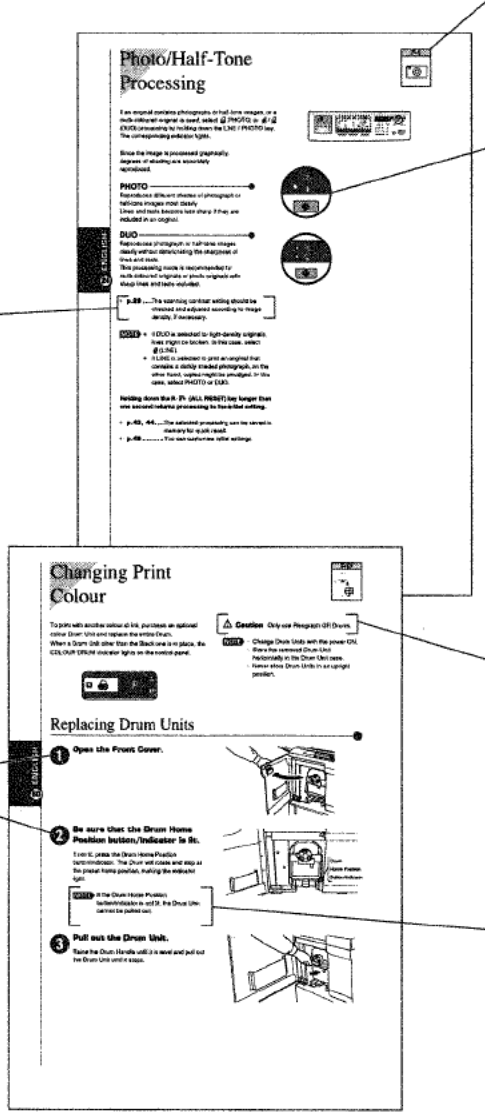
About This User's Guide

This Guide provides all required information necessary to use your RISOgraph GR2710. It is designed to help you take advantage of the features built into the Risograph GR2710, and provides information on maintenance and troubleshooting.

[Pictorial Guide]

⇨ Original

⇨ Printed copy



Pictorial Description
Describes a feature available in GR2710 with a picture.

Panel Highlight
Indicates the key or/and indicator to be used or referred to during operation.

Cross-reference Remark
Indicates other sections of the User's Guide where you can find related descriptions.

Operation Instruction
Describes operation procedures with simple numbered steps.

Safety Remark
Gives you safety instructions under the following icons:

⚠ **Caution**

⚠ **WARNING**

Advice Remark
Gives you helpful advice for trouble-free operation under the following heading:

NOTE
Important!

If you have installed the optional ADF Unit on your machine, use the special Replacement Pages which are provided at the back of this User's Guide.

Introduction to Your RISOgraph

This section provides the basic information about your RISOgraph, including initial installation, an overview of features, and names of parts.

- **Installation** 6
  - Location and Environment 6
  - Power Connections 6
- **Overview of Features** 7
- **Knowing the Parts and Components** 8
- **The Control Panel** 10
- **The Operation Guide Displays** 12

Installation

Follow the directions below to ensure that your machine is installed in the correct location and environment. They are intended to increase safety and prolong the life of your machine.

Location and Environment

Your dealer will help determine the proper location for your machine at the time of delivery.

⚠ **Caution**
- Install the machine near an electrical socket to avoid using an extension cord between the machine and the electrical socket. If an extension cord is unavoidable, do not use one longer than 5 m.
- Do not allow anything to rest on or roll over the electrical cord and do not place the machine where the electrical cord is subject to traffic or abuse. This can result in a shock or fire hazard.
- Maintain adequate distance from the rear wall to allow the easy connection/disconnection of the electrical cord.

Important! [To Avoid Mechanical Problems]
- Avoid dusty locations, such as near blackboards.
- Select a location where the machine will be level (maximum of ±10 mm differential allowed).
- Avoid locations where direct sunlight will fall on the machine. If this is unavoidable, protect the machine with a curtain or shade on windows.
- Install within the recommended temperature range: 15℃ to 30℃ with moderate humidity (40% to 70%, no condensation).
- Avoid situations of sudden temperature change.
- Avoid locations where heat or air is directed onto the machine from an air conditioner or a heater.

Power Connections

⚠ **WARNING [To Avoid Personal Injury]**
- Securely insert the electrical cord plug into the electrical socket to ensure proper electrical connection.
- Do not overload the electrical socket or extension cord, as it can result in fire or electrical shock (check the "Specifications" section for the allowable range).
- Make sure that the electrical cord plug is not crushed under other pieces of machinery or stepped on by normal traffic.

Overview of Features

Your RISOgraph is a high-quality digital printer that is as easy to use as a copier.

- **Easy to Use and Fully Automatic**
  The control panel shows you the options available and the current status of the machine by utilising indicator lights and easy-to-read digital displays. There is also a convenient "Machine Monitor" for troubleshooting.

  Your Risograph processes your original by first making a master and then printing.

- **Print Speed Control**
  Any of five print speeds can be selected for optimum performance.

- **Confidential Feature**
  A confidential original can be printed and the master can be automatically discarded to prevent further, unauthorized printing.

- **Colour Printing Options**
  Optional ink colours are available, by simply changing the Drum Unit.

- **Enlargement and Reduction Capabilities**
  Prints can be reduced or enlarged according to your needs. Pre-set standard reduction and enlargement are available (e.g., A3→A4).

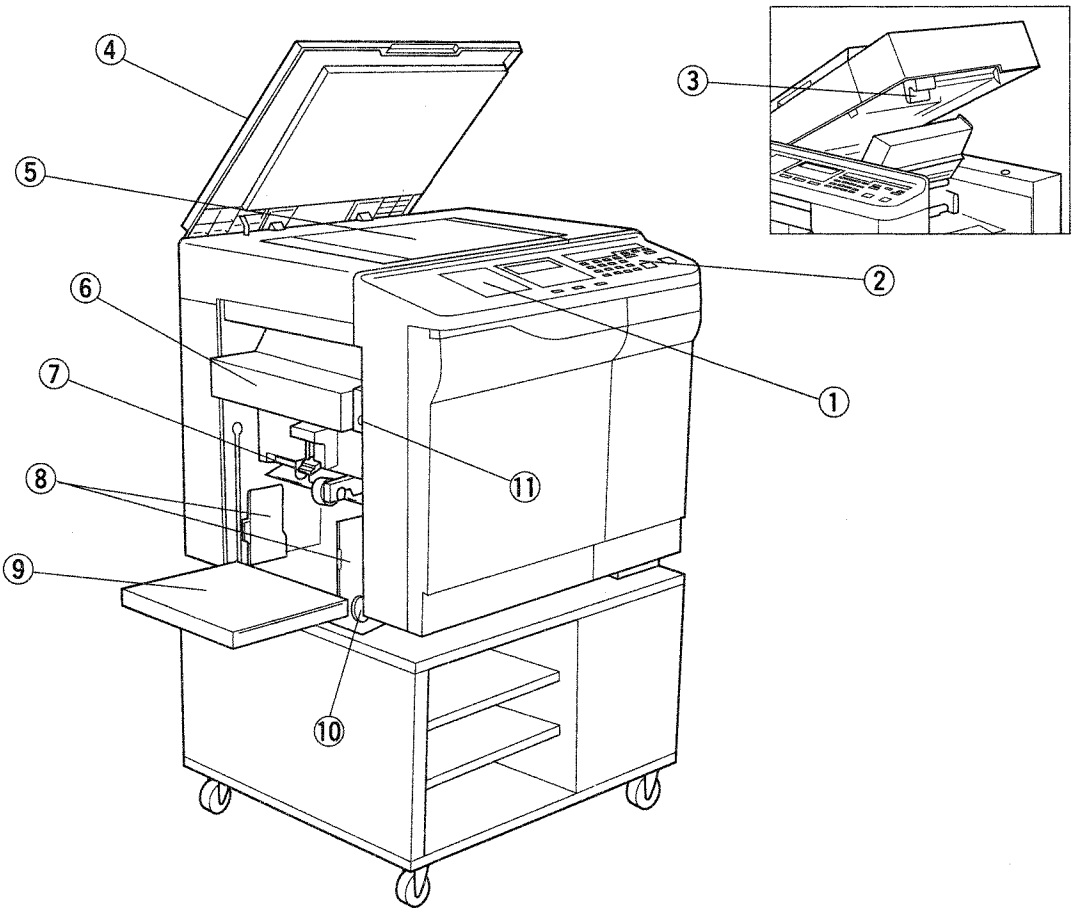
- **Programmable Print Groupings**
  Simple control panel entries can automate different types of groupings to save time finishing your print jobs.

- **Programmable Print Jobs**
  Frequently used or complex print job settings can be stored in memory for instant recall.

- **Two-Up Printing**
  Originals can be printed side by side on a single sheet.

- **Automatic Idle**
  This feature prevents faint or blurred images on the first few sheets when printing starts again after a period of idle time.

Knowing the Parts and Components



Upper Section

① **Sub Control Panel** (☞ p.11)

② **Main Control Panel** (☞ p.10)

③ **Scanner Table Release Lever**
Unlocks and opens the Scanner Table.

④ **Platen Cover** (☞ p.71)
Covers and secures the original placed on the Platen Glass.

⑤ **Platen Glass** (☞ p.71)

Paper Feed Section

⑥ **Master Disposal Box** (☞ p.58)
Holds discarded masters.

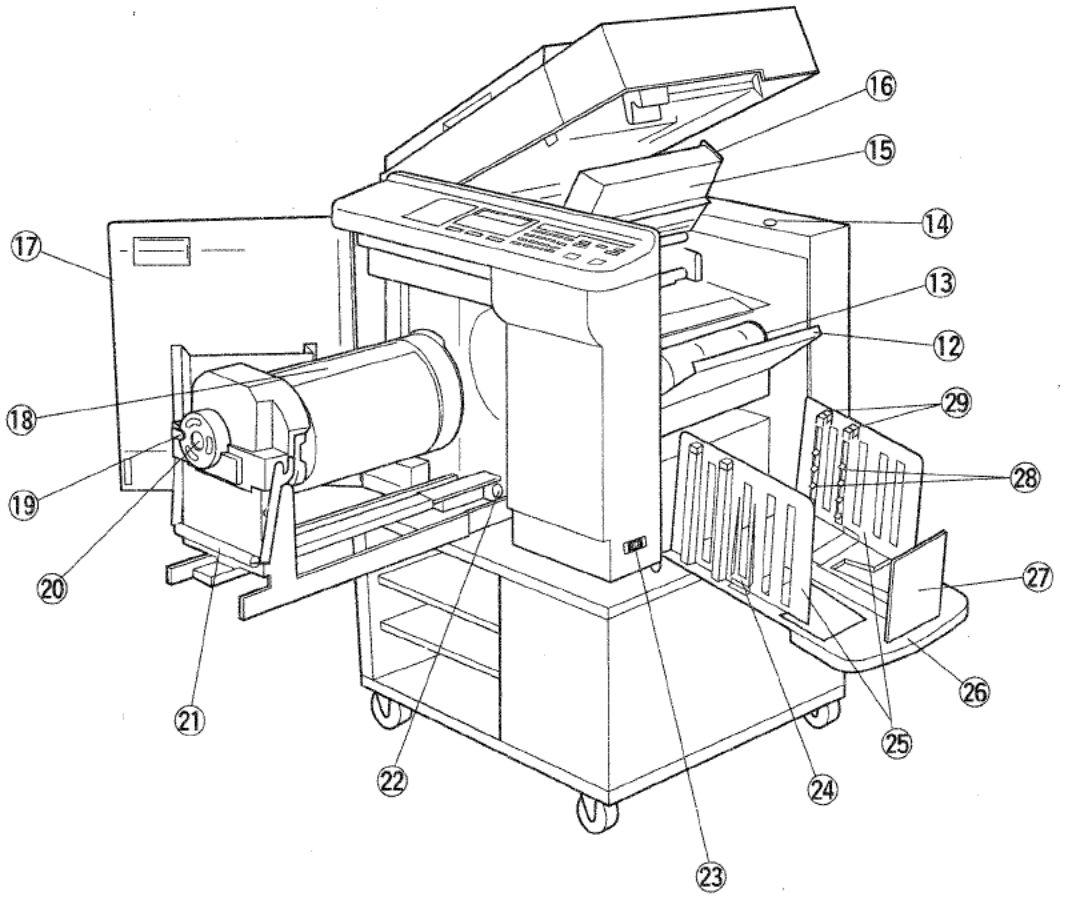
⑦ **Paper Feed Pressure Adjustment Lever** (☞ p.16)
Adjusts the paper feed pressure according to the paper being used.

⑧ **Feed Tray Paper Guides** (☞ p.16)
Holds and guides paper.

⑨ **Paper Feed Tray** (☞ p.16)

⑩ **Left/Right Print Position Adjustment Dial** (☞ p.30)
Moves the print position to the left or right.

⑪ **Feed Tray Down Button** (☞ p.16)
Lowers the Paper Feed Tray for replacing or adding printing paper.



Master-Making Section

⑫ **Master Roll Cover** (☞ p.56)
Protects the Master Roll.

⑬ **Master Roll** (☞ p.56)

⑭ **Master Loading Button** (☞ p.56)
Loads as well as cuts the master.

⑮ **Master Loading Unit** (☞ p.56)
Makes a master from the scanned original.

⑯ **Master Loading Unit Release Lever** (☞ p.56)
Opens the Master Loading Unit.

Front Section

⑰ **Front Cover**

⑱ **Drum Unit** (☞ p.50)
Holds the master on its surface.

⑲ **Ink Cartridge Locking Lever** (☞ p.54)
Secures the Ink Cartridge in position.

⑳ **Ink Cartridge** (☞ p.54)

㉑ **Drum Handle** (☞ p.50)
Used to pull the Drum Unit out of the machine.

㉒ **Drum Home Position Button/Indicator** (☞ p.50)
Positions and unlocks the Drum Unit for removal.

㉓ **Main Power Switch** (☞ p.22)

Paper Receiving Section

㉔ **Receiving Tray Paper Guide Adjustment Knob** (☞ p.17)

㉕ **Receiving Tray Paper Guides** (☞ p.17)
Aligns printed paper neatly.

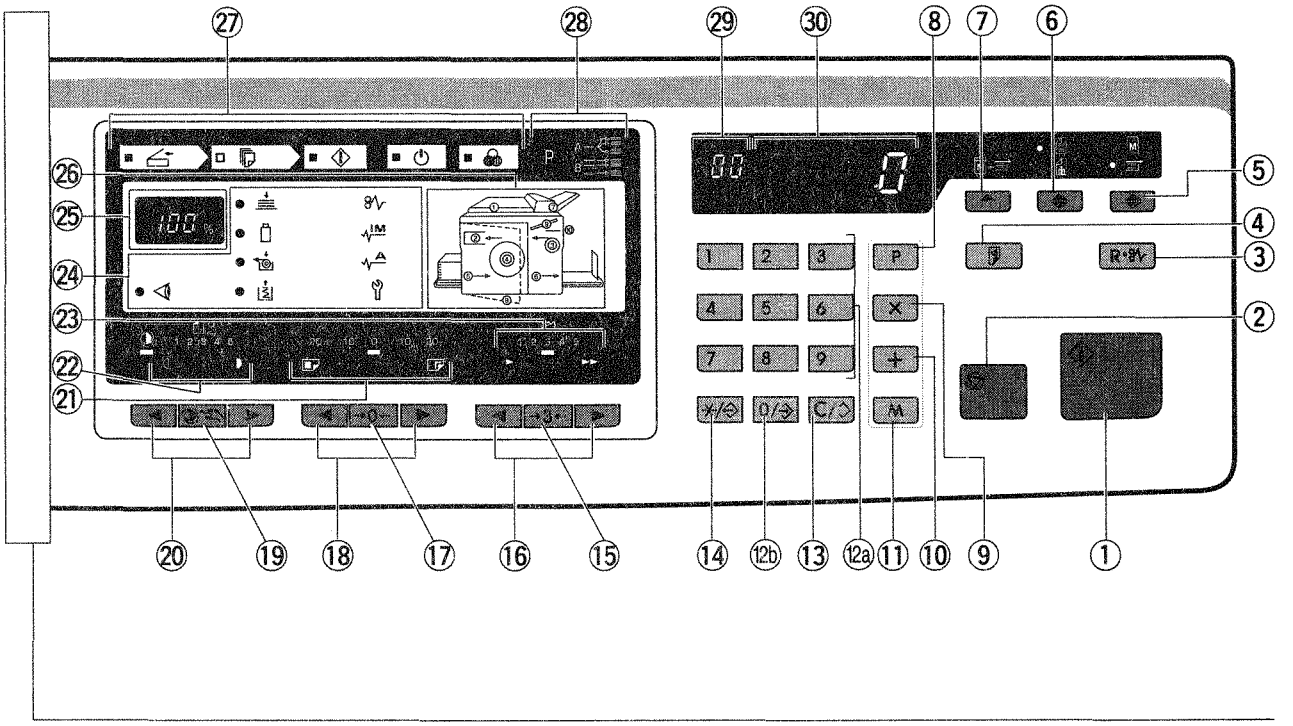
㉖ **Paper Receiving Tray** (☞ p.17)

㉗ **Paper Stop** (☞ p.18)
Stops printed paper ejected into the Paper Receiving Tray.

㉘ **Paper Arranger** (☞ p.17)
Helps arrange printed paper ejected into the Paper Receiving Tray.

㉙ **Paper Arranger Adjustment Knob** (☞ p.17)

The Control Panel



Main Control Panel

① **START Key [◇]**
Starts printing or making a master. The indicator is lit "GREEN" when the key is active. This key is also used to resume operation after troubleshooting.

② **STOP Key [▽]**
Interrupts printing, and cancels confidential feature.

③ **ALL RESET Key [R·↺] (☞ p.32)**
Returns all settings to initial status. This key is also used to clear error displays after troubleshooting.

④ **TEST PRINT Key [ ] (☞ p.25)**
Prints a test print from the current master to allow you to check print quality, printing position and so on.

⑤ **MASTER-MAKING/PRINT Key [/]**
Switches between Master-Making and Printing operations. Normally, selection is made automatically according to the current process.

⑥ **LINE/PHOTO Key [/] (☞ p.24)**
Switches the current processing mode among Line, Photo and Duo. The indicators light according to the selected mode.

⑦ **AUTO PRINT Key [+] (☞ p.26)**
Automates the process of master-making through to printing. The indicator lights when the feature is active.

⑧ **PROGRAMME Key [P] (☞ pp.37-41)**
Provides access to programmed grouping of prints.

⑨ **× Key (☞ pp.37-41)**
Use when making program settings.

⑩ **+ Key (☞ pp.37-41)**
Use when making program settings.

⑪ **MEMORY Key [M] (☞ pp.42-45)**
Provides access to the Memory features.

⑫a **Print Quantity Keys (0 to 9 Keys)**
Use these keys to enter the number of copies to be printed, or to enter other numeric values.

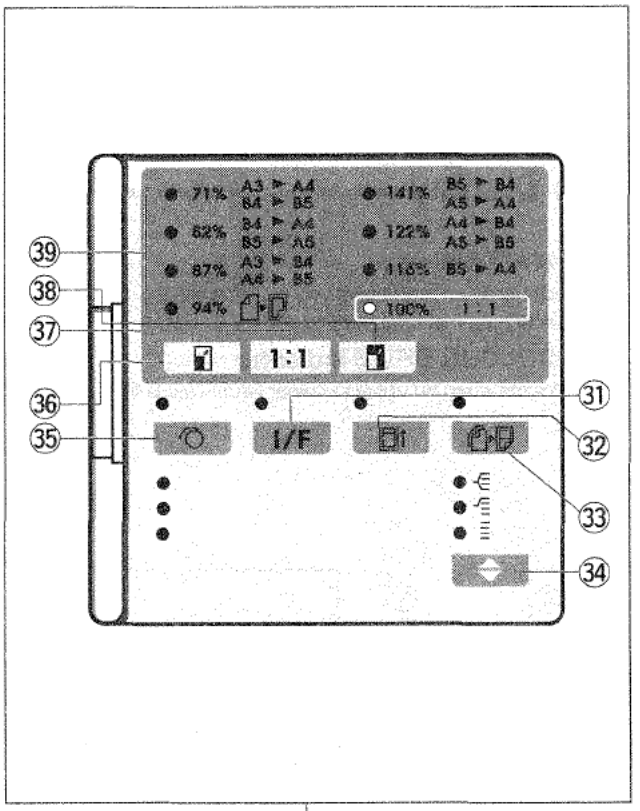
⑫b **0/SAVE Key [0/→] (☞ p.43)**
Use to store settings in memory.

⑬ **C/ERASE Key [C/◇] (☞ p.45)**
Cancels the number entered and resets the Print Quantity Display to zero. Also erases contents of memory.

⑭ **✳/CALL Key [✳/→] (☞ p.44)**
Use for memory recall.

⑮ **PRINT SPEED CENTRE Key [→3←] (☞ p.31)**
Returns the print speed to the standard setting.

⑯ **PRINT SPEED Adjustment Keys [◁ ▷] (☞ p.31)**
Adjusts print speed (on a 1 to 5 scale).



⑰ **PRINT POSITION CENTRE Key [→0←] (☞ p.30)**
Moves vertical print position back to centre.

⑱ **PRINT POSITION Adjustment Keys [◁ ▷] (☞ p.30)**
Adjusts vertical print position.

⑲ **SCANNING CONTRAST Mode Key [ ] (☞ p.29)**
Switches between auto and manual scanning contrast adjustment modes.The indicator lights when the auto-adjustment mode is selected.

⑳ **SCANNING CONTRAST Adjustment Keys [◁ ▷] (☞ p.29)**
Selects contrast adjustments (on a 1 to 5 scale) for the darkness of the original to be scanned.

Display

㉑ **PRINT POSITION Indicator (☞ p.30)**
Shows the current vertical print position.

㉒ **ORIGINAL SCANNING CONTRAST Indicator (☞ p.29)**
Shows the current original scanning contrast.

㉓ **PRINT SPEED Indicator (☞ p.31)**
Shows the selected print speed.

㉔ **Check & Error Display (☞ p.12)**
Shows errors or machine status.

㉕ **Reproduction Mode Indicator (☞ p.28)**
Shows whether an original is reduced / enlarged or not.

㉖ **Machine Monitor Display (☞ p.59)**
Shows locations which should be checked in relation with the error or machine status indicated in the Check & Error Display.

㉗ **Operation Status Display (☞ p.12)**
Instructs the next operation.

㉘ **Programme Display (☞ pp.37-41)**
Shows the selected programme setting (A or B).

㉙ **Entry Number Display (☞ pp.37-45)**
Shows the group address in the Programmed printing feature or the register number in the Memory feature.

㉚ **Print Quantity Display**
Counts the number of printed copies or shows other numeric settings and advice codes.

Sub Control Panel

㉛ **INTERFACE Key [I/F] (☞ p.52)**
Allows data transmission between your machine and personal computer or word prosessor.
The indicator lights when an interface line is opened.

㉜ **CONFIDENTIAL Key [ ] (☞ p.46)**
Protects confidential documents from unauthorised duplication. The ind11 12icator lights when the feature is active.

㉝ **TWO-UP Key [ ] (☞ pp.34-36)**
Reproduces two prints side by side on one sheet of paper. The indicator lights when the feature is active.

㉞ **SORTER Key [ ] (☞ p.74)**
Use this key when you use an optional sorter.The indicators light when the sorter is active.

㉟ **AUTO IDLE Key [ ] (☞ p.47)**
When switched ON, extremely light or blurred printing is prevented after the machine has not been used for long periods of time.The indicator lights when AUTO IDLE is switched ON.

㊱ **REDUCE Key [ ] (☞ p.28)**
Selects any of four reduction ratios.

㊲ **1:1 Key (☞ p.28)**
Returns the reproduction ratio to 1:1 (100%).

㊳ **ENLARGE Key [ ] (☞ p.28)**
Selects one of three preset enlargement ratios.

㊴ **Preset Reduction / Enlargement Ratio Indicator (☞ p.28)**
Shows the current preset reduction or enlargement ratio.

The Operation Guide
Displays

Operation Status Display

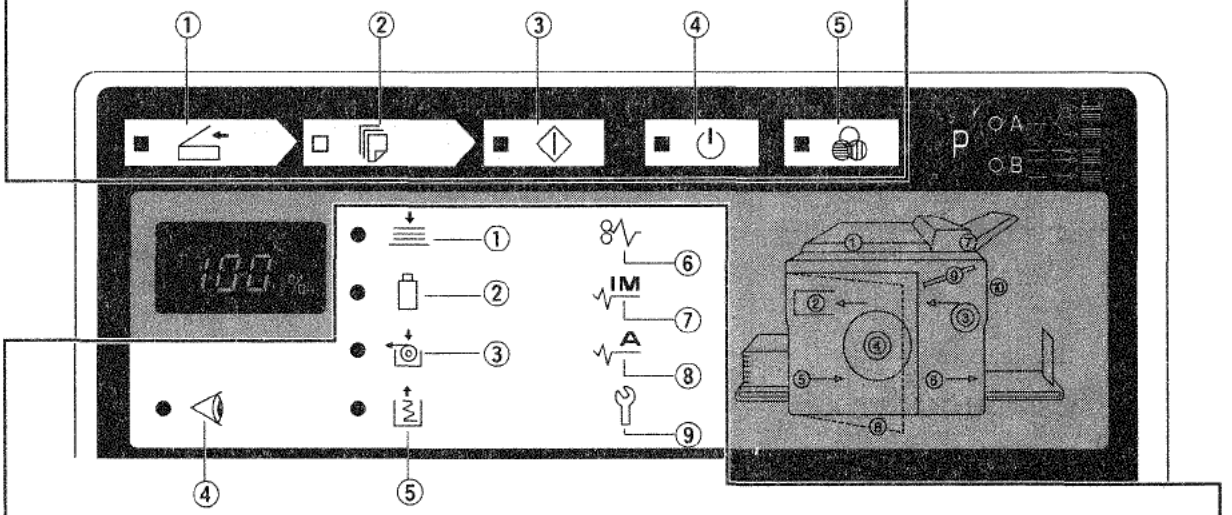
① **PLACE ORIGINAL Indicator**
Lights when an original is required to be placed in position.

② **SELECT PRINT QUANTITY Indicator**
Lights when the number of copies is required to be specified.

③ **START Indicator**
Lights when the ◇ (START) key is required to be pressed.

④ **WAIT Indicator**
Lights when requesting you to wait while the RISOgraph is operating.

⑤ **COLOUR DRUM Indicator**
Lights when an optional colour Drum Unit is installed.



Check & Error Display

① **ADD PAPER Indicator**
Flashes when paper is not loaded on the Paper Feed Tray.

② **REPLACE INK CARTRIDGE Indicator**
Flashes when the Ink Cartridge is empty.

③ **REPLACE MASTER ROLL Indicator**
Flashes when the Master Roll is depleted.

④ **CHECK SETTINGS Indicator**
Flashes when consumables or components of the unit are not placed in position.

⑤ **EMPTY DISPOSAL BOX Indicator**
Flashes when the Master Disposal Box is full of used masters.

⑥ **PAPER JAM Indicator**
Flashes when printing paper or originals get jammed or misfeed.

⑦ **MASTER MISFEED Indicator**
Flashes when an error occurs during master-making or master disposal operation.

⑧ **OPTIONAL ACCESSORY ERROR Indicator**
Flashes when an error occurs in the optional sorter or sheet feeder.

⑨ **CALL SERVICE Indicator**
Flashes when technical supports of your authorised service representative are required.

Getting Ready to Use Your RISOgraph

This section describes how to set your machine for initial use, with basic information on printing paper and originals.

- **Printing Paper 14**
  - Size and Weight 14
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  - Storing Environment 14
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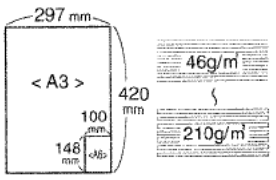
  - Closing the Paper Receiving Tray 18

Printing Paper

Size and Weight

Printing paper sizes of A6 (postcard size) to A3 can be used. A wide range of paper thicknesses and types can be used for printing. Use printing paper with weights between 46 g/㎡ and 210 g/㎡.

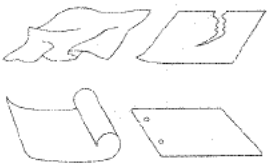


The maximum printing area is as follows :
- B4 Drum - 250 x 353 mm
- A4 Drum - 198 x 286 mm

Important!

Do not use the following types of paper, as they can cause jams or misfeeds:

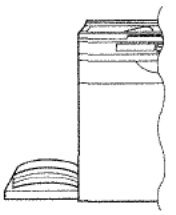
- Extremely thin paper (less than 46 g/㎡)
- Extremely thick or heavy paper (greater than 210 g/㎡)
- Wrinkled, curled, folded, or torn paper
- Chemically treated or coated paper (such as thermal or carbon paper)



Guides for Trouble-Free Use

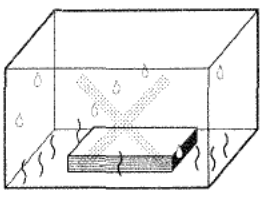
To prevent paper jams and misfeeds, follow the directions below:

- When using standard paper, set the Paper Feed Pressure Adjustment Lever to "⚹" (NORMAL) and open all four Paper Arrangers. ☞ **pp.16-18**
- When using thick paper (such as drawing paper), set the Paper Feed Pressure Adjustment Lever to "⚹" (CARD), and open the two inner Paper Arrangers. ☞ **pp.16-18**
- When using smooth paper, set the Paper Feed Pressure Adjustment Lever to "⚹" (CARD). ☞ **p.16**
- Slide the Feed Tray Paper Guides, Receiving Tray Paper Guides, and Paper Stop to fit the paper size. ☞ **pp.16-18**
- Use flat printing paper that is free of folds. If curled paper is unavoidable, place the printing paper so that the curl faces down.
- Printing paper tends to stick to the Drum surface if the top margin is too narrow on the original or if the upper portion of the original uses a large amount of ink. To solve this problem, lower the print position to provide a wider top margin or reverse the top and bottom of the original. Then restart printing from the beginning. ☞ **p.30**



Storing Environment

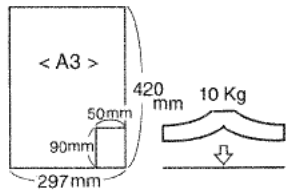
Store printing paper in a level, dry area. Storing the paper in an excessively humid area could cause paper jams as well as poor print quality.



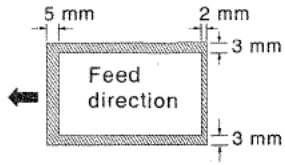
Originals

Size and Weight

The Platen Glass can be used to print from bound originals such as books or sheet originals. You can place originals from 50 x 90 mm (business card) to A3 on the Platen Glass. The weight of bound originals should be 10 kg or less.
The margins indicated on the figure to the right are required for the original.
If necessary reduce the original so that it fits inside these margins.



NOTE
- If an original is wrinkled, curled, or creased, flatten it thoroughly so that it can be pressed directly onto the Platen Glass during processing.
- If correction fluid or glue is used on an original, make sure that it is dry before placing the original on to the Platen Glass.



Guides for Selecting Processing

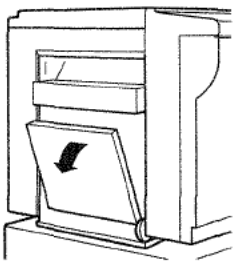
You can use two kinds of image processing modes to produce printed copies according to the contents of the original.

- LINE/PHOTO Key (/) - ☞ **p.24**
  - LINE [ ] For ordinary documents.
  - PHOTO [ ] To reproduce different shades of photographs or half-tone images.
  - DUO [/] To reproduce photographs or half-tone images clearly without deteriorating line sharpness.

Setting Up Your RISOgraph

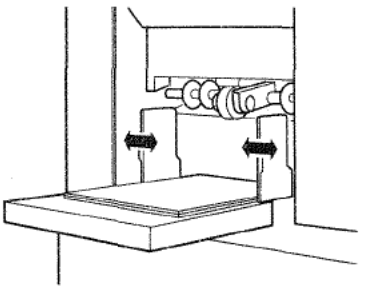
Setting Up the Paper Feed Tray

1 Open the Paper Feed Tray.



2 Load the printing paper and slide the Feed Tray Paper Guides to fit the paper width.

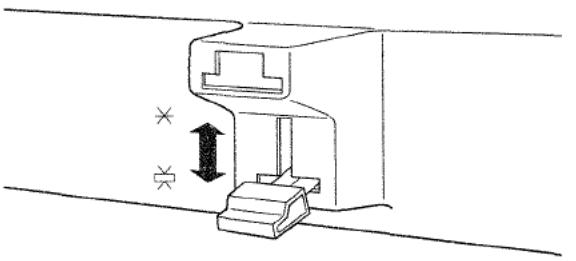
Important!
Do not mix printing paper of different sizes.



3 Set the paper feed pressure.

Position the Paper Feed Pressure Adjustment Lever at either ✳ (Normal) or ✳ (Card), according to the paper to be used:

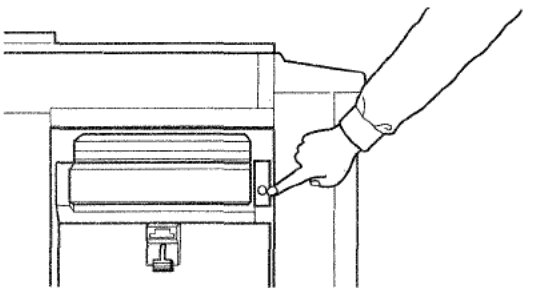
- ✳ (NORMAL) Standard paper
- ✳ (CARD) Thick paper such as drawing paper or smooth paper



Adding or Replacing Paper

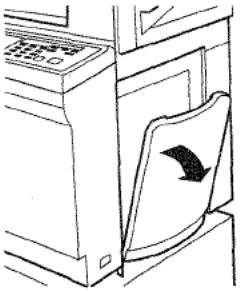
If you want to add paper or use paper of different size during printing, lower the Paper Feed Tray so that you can load the paper easily.
To lower the Paper Feed Tray, hold down the Feed Tray Down button.

Important!
Do not mix different paper sizes in the Paper Feed Tray.



Setting Up the Paper Receiving Tray

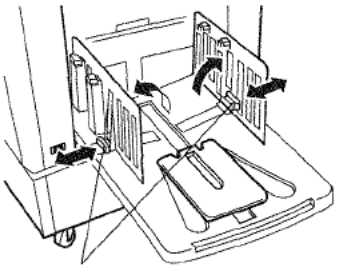
1 Open the Paper Receiving Tray.



2 Raise and slide the Receiving Tray Paper Guides to fit the paper width.

Holding the Receiving Tray Paper Guide Adjustment Knob, slide the guides.

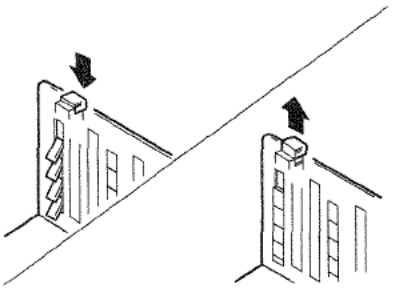
NOTE For thick paper, set the guides a little wider than the actual paper width.



Receiving Tray Paper Guide Adjustment Knob

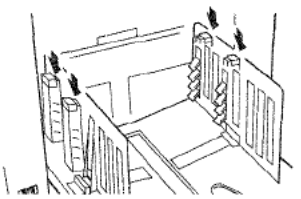
3 Adjust the Paper Arrangers.

Select the best combination of Paper Arranger settings.



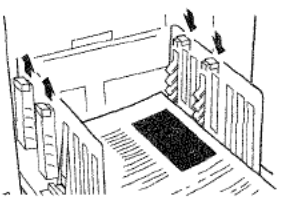
NOTE = How to set Paper Arrangers =

- Ordinary paper



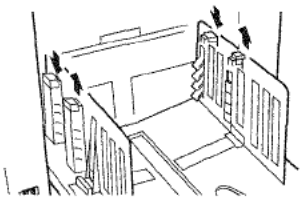
Open all four Paper Arrangers.

- Ordinary paper with images lopsided on page



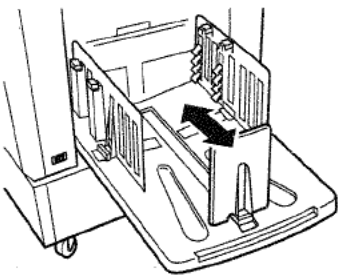
Open two Paper Arrangers on the more heavily printed side.

- Thick paper



Open the two Paper Arrangers closest to the machine.

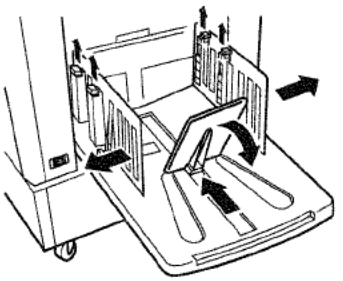
4 **Raise and slide the Paper Stop to fit paper length.**



Closing the Paper Receiving Tray

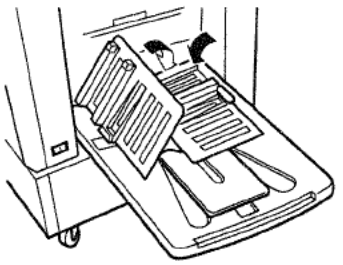
1 **Slide the Paper Stop inwards and turn it down and outwards.**

NOTE Do not let the Paper Stop protrude from the Paper Receiving Tray.

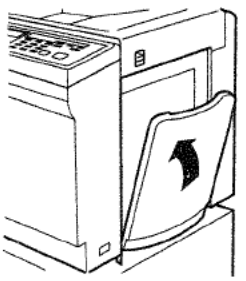


2 **Close all four Paper Arrangers and spread the Receiving Tray Paper Guides to the A3 position.**

3 **Turn down the Receiving Tray Paper Guides.**



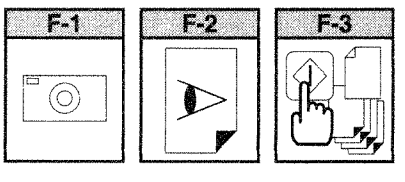
4 **Close the Paper Receiving Tray.**



Basic Features

This section describes the basic operation procedures and the features of your RISOgraph.

- **Handling and Operation** 20
- **Basic Processes** 21
- **Basic Operation** 22
- **Photo/Half-Tone Processing** F-1 24
- **Producing Test Prints** F-2 25
- **Quick Printing (No Test Print Check)** F-3 26



Handling and Operation

To ensure proper product quality and the prolong the life of your machine, follow the directions below concerning handling and operation.

⚠ WARNING [To Avoid Personal Injury]

- Use common sense.
- Do not open the cover or move the machine during operation.
- Do not handle the parts inside the machine, except what is specified in this *User's Guide*. The parts are made with high precision and can be damaged easily.
- Never stick your hands or fingers in the openings in and around the Paper Feed Tray as well as the Paper Receiving Tray during operation.
- Keep loose clothing or long hair away from moving parts to avoid becoming entangled.
- Do not try to alter the unit or remove parts.
- Disconnect the electrical cord if you think there is an electrical problem.
- Before cleaning any parts of the machine, turn the power off.

⚠ Caution [To Avoid Mechanical Problems]

- Open/close the covers gently.
- Do not turn off or unplug the machine during operation.
- Do not place items on top of the unit or in any opening of the machine during operation. It could damage the machine.
- Do not place heavy objects on any part of the machine.
- Do not subject the unit to jolts.
- Contact your local service centre before moving the machine.

Important! - Materials Not to Be Printed

Remember not to infringe copyrights or violate laws when using the machine, even during personal use. Consult the authorities in the country of your residence for further details. In general, use discretion and common sense.

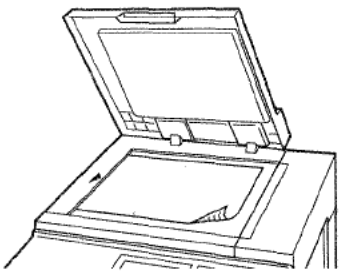
Basic Processes

The basic processes of your RISOgraph can be divided into two stages: making a master of an original (master-making), and then printing copies from the master. The machine has been designed so that these two processes flow smoothly from one to the other, with the current action shown clearly in the display.

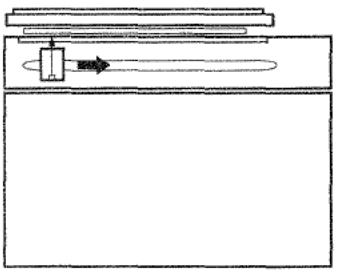
Master-Making

When you make a master, an original is scanned to create a master and the master is wound around the Drum Unit.

1 Set an original in place.

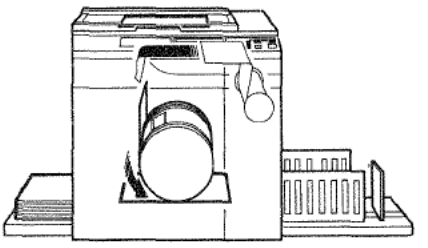


2 Scan the original.



3 Create a master.

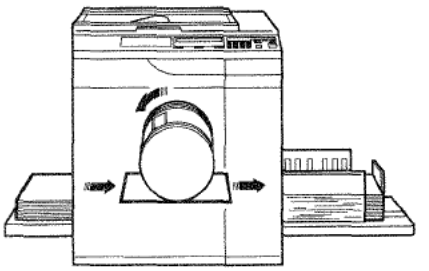
The master is loaded on the Drum Unit and a test print comes out.



Printing

When you print, the Drum Unit rotates to print the specified number of copies.

4 Enter the number of copies you want.

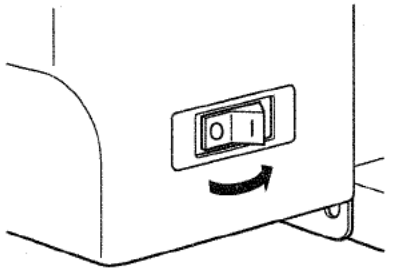


5 Start printing.

Basic Operation

1 Turn the power switch ON.

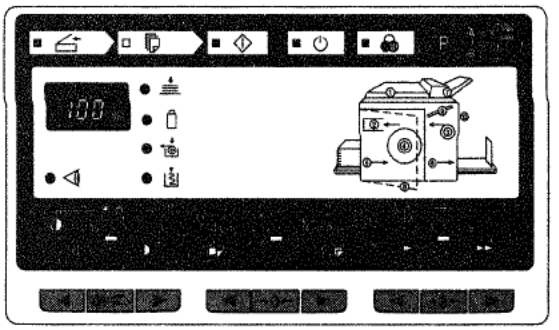
The power switch is located on the lower right side of the machine.



I	—	ON
O	—	OFF

2 Check the settings on the control panel.

When the power is connected, the control panel indicators show the initial settings.
Make any necessary changes, such as reproduction ratio and processing mode.



Holding down the R·ﾘｾｯﾄ (ALL RESET) key longer than one second returns the control panel to the initial settings.

☞ **p.32** .....Return to initial settings.
☞ **p.48**.....You can customise the initial settings.
☞ **p.43, 44**....Frequently used combinations of settings can be saved in memory for quick recall.

3 Place an original on the Platen Glass.

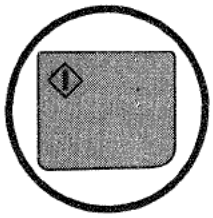
Open the Platen Cover and place an original face down. Position the original according to the indicators on the left-hand side of the glass. Close the cover, resting it gently on the original.

⚠ **Caution** **Do not force the cover down on top of a bound original placed on the Platen Glass.**

NOTE When an original is in place, processing automatically changes to Master-Making from Printing. The MASTER-MAKING indicator on the control panel lights up.

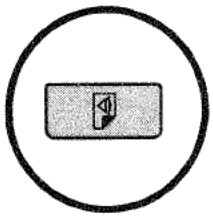
4 Press the START key.

After an original is scanned, a master is created. A test print is automatically printed to allow you to check the print quality, position, and density.



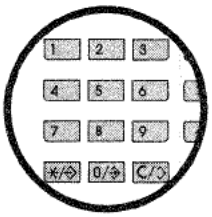
☞ **p.30** ....To change the position of the printed image, press the PRINT POSITION Adjustment keys, and/or turn the Left/Right Print Position Adjustment Dial.

If settings are changed, press the TEST PRINT key to check the results.



5 Enter the number of copies to be printed.

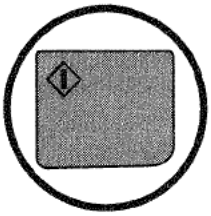
Specify the number of copies to be printed using the Print Quantity keys; the number is displayed in the Print Quantity Display.



NOTE If you enter a number incorrectly, press the C key to reset the Print Quantity Display to zero, then enter the correct number.

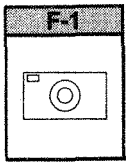
6 Press the START key.

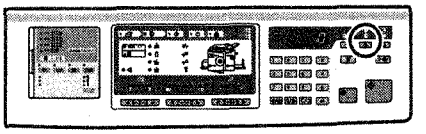
The specified number of copies is printed.



NOTE If printing stops and the ADD PAPER indicator flashes on the control panel, paper has run out in the Paper Feed Tray. Load paper into the tray.
☞ **p.16**

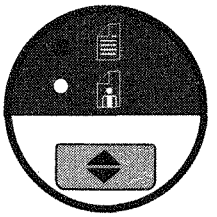
Photo/Half-Tone Processing





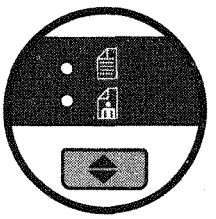
If an original contains photographs or half-tone images, or a multi-coloured original is used, select (PHOTO) or / (DUO) processing by holding down the LINE / PHOTO key. The corresponding indicator lights.

Since the image is processed graphically, degrees of shading are accurately reproduced.



PHOTO

Reproduces different shades of photograph or half-tone images most clearly.
Lines and texts become less sharp if they are included in an original.



DUO

Reproduces photograph or half-tone images clearly without deteriorating the sharpness of lines and texts.
This processing mode is recommended for multi-coloured originals or photo originals with sharp lines and texts included.

☞ **p.29** ....The scanning contrast setting should be checked and adjusted according to image density, if necessary.

NOTE
- If DUO is selected for light-density originals, lines might be broken. In this case, select (LINE).
- If LINE is selected to print an original that contains a darkly shaded photograph, on the other hand, copies might be smudged. In this case, select PHOTO or DUO.

Holding down the R·ꕥ (ALL RESET) key longer than one second returns processing to the initial setting.

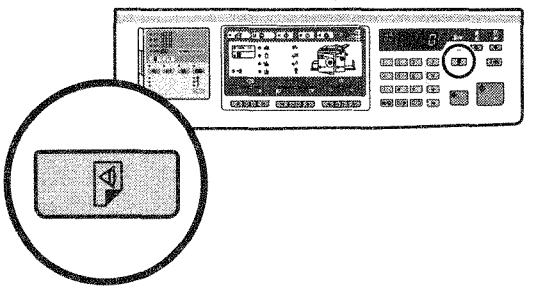
☞ **p.43, 44** ....The selected processing can be saved in memory for quick recall.
☞ **p.48** .....You can customise initial settings.

Producing Test Prints

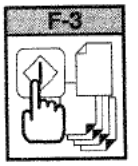
If changes have been made to the print position and other settings, check the print quality by producing test prints.

By holding down the TEST PRINT key, you can print continuously.

NOTE Test printing does not affect the quantity in the Print Quantity Display.

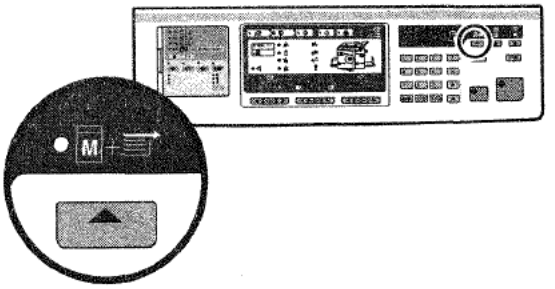


Quick Printing (No Test Print Check)



If you do not need to check print samples before making prints, press the AUTO PRINT key before pressing the ◇ (START) key to activate the Auto Print feature. This feature enables non-stop operation from master-making through printing.

NOTE If you need to check or adjust the print position, cancel the Auto Print feature by pressing the AUTO PRINT key again.

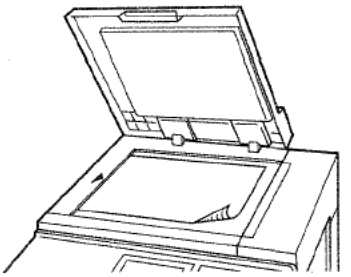


1 Press the AUTO PRINT key.

The Auto Print Indicator lights.

2 Set an original into place.

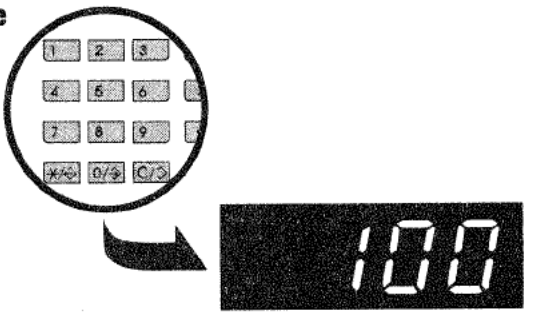
Open the Platen Cover and place an original face down on the Platen Glass. Close the cover gently on the original.



3 Enter the number of copies to be printed.

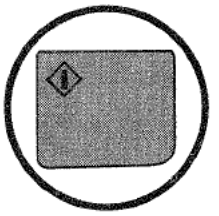
NOTE If you enter a number incorrectly, press the C key to reset the Print Quantity Display to "0," then enter the correct number.

If "0" is selected as the print quantity, the machine will not start.



4 Press the START key.

The specified number of copies are produced with an extra test print.



☞ **p.43, 44....**The Auto Print feature can be saved in memory for quick recall.

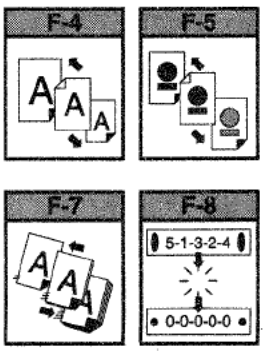
Holding down the R·ﾘｾｯﾄ (ALL RESET) key longer than one second returns the Auto Print feature to the initial setting.

☞ **p.48 ....**You can customise initial settings.

Handy Features

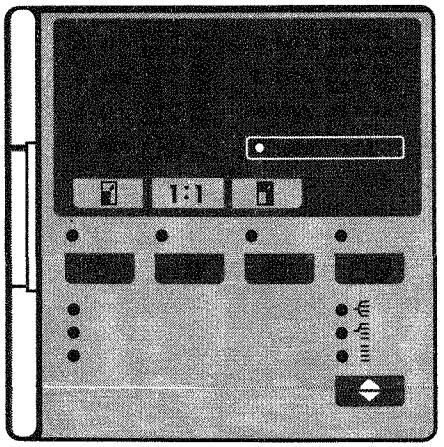
This section describes the features that enhance your RISOgraph's versatility.

- **Reducing and Enlarging Originals F-4** 28
- **Changing Image Tone on Prints F-5** 29
- **Repositioning the Print F-6** 30
  - Adjusting the Vertical Print Position 30
  - Adjusting the Horizontal Print Position 30
- **Changing the Print Speed F-7** 31
- **Return to Initial Settings F-8** 32



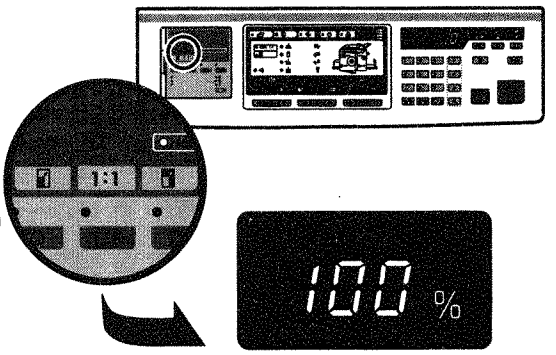
Reducing and Enlarging Originals

Originals can be reduced or enlarged using preset reduction and enlargement.



☞ **p.43, 44 ....**Reproduction ratio can be adjusted and saved in memory for quick recall.

Press the (REDUCE) key or (ENLARGE) key to select a desired ratio.



The Reproduction Mode Indicator lights up.

Each time the REDUCE key or ENLARGE key is pressed, the Preset Reduction / Enlargement Ratio indicators light in the following order:

94 % → 87 % → 82 % → 71 % → 94 %
116 % → 122 % → 141 % → 116 %

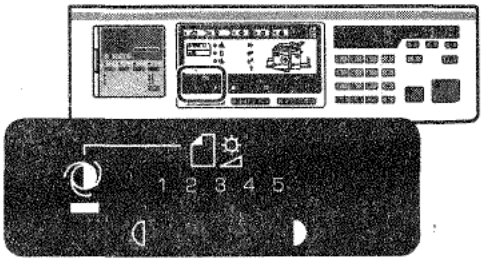
When you press the 1:1 key, the ratio returns to the original size (100%).

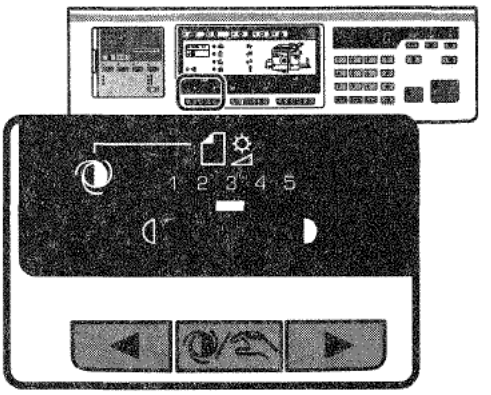
Holding down the R·𝒮𝓇 (ALL RESET) key longer than one second returns print size to the initial setting (1:1).

Changing Image Tone on Prints

To achieve different tones on printed copies from those of an original, adjust the scanning contrast manually by cancelling the Auto Scanning Contrast Adjustment mode.

When the Auto Scanning Contrast Adjustment mode is selected, the ◑ (Auto adjustment) indicator is lit. In this case, the scanning contrast can be adjusted automatically according to the darkness of the original scanned.





1 Confirm that the ◑ (Auto adjustment) indicator is OFF.

If not, press the ◑/✍ (SCANNING CONTRAST Mode) key to switch to the manual adjustment mode.

2 Press the ◀ key to lighten contrast or the ▶ key to darken contrast.

Each press of the ◀ or ▶ keys lightens or darkens, respectively, the contrast by one degree (on a 1 to 5 scale).

◀ For newspaper or coloured originals.

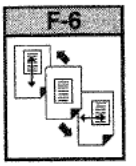
▶ For poor copies or pencil-written originals.

NOTE After adjusting the scanning contrast, make another master to make the adjustment effective for further printed copies.

Holding down the R·✲ (ALL RESET) key longer than one second returns the Scanning Contrast mode to the initial setting (AUTO).

☞ **p.43, 44** ....Scanning contrast can be adjusted and saved in memory for quick recall.

Repositioning the Print

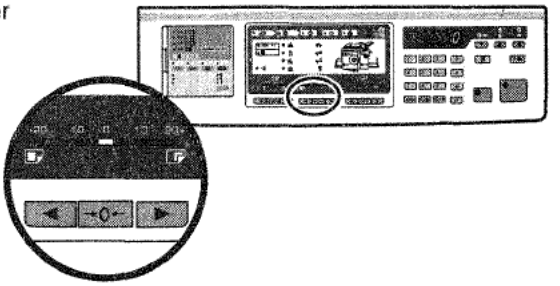


The print position can be adjusted vertically (up and down) and horizontally (to the right and left).

NOTE If you adjust the print position, be sure to produce test prints to verify the new print position.

Adjusting the Vertical Print Position

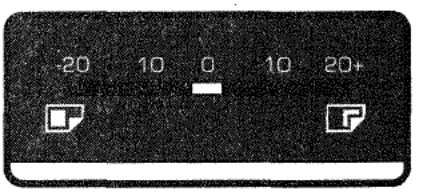
You can move the print position vertically by pressing either of the PRINT POSITION Adjustment keys. The range is ±20 mm.
When the key is pressed, the adjusted vertical print position is roughly given by the PRINT POSITION indicator.



Moves print position down.

Moves print position up.

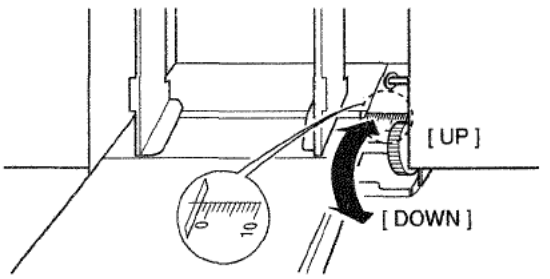
Returns print position to the centre.



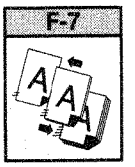
Adjusting the Horizontal Print Position

You can move the print position horizontally by turning the Left/Right Print Position Adjustment Dial on the Paper Feed Tray. The range is ±20 mm.

[UP] : Moves print position to the left.
[DOWN] : Moves print position to the right.



Changing the Print Speed



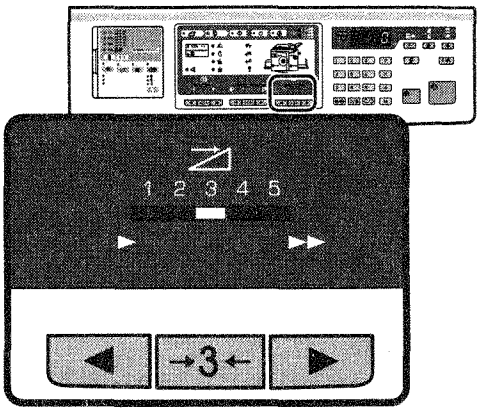
The print speed can be set at any of five levels, ranging between 60 and 130 sheets per minutes.

Press the PRINT SPEED Adjustment keys (◀ / ▶) to change the print speed.

◀ Decreases print speed.

▶ Increases print speed.

→3← Returns print speed to the normal setting.



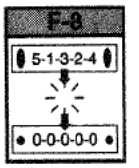
NOTE The normal print speed (setting 3) is 100 sheets per minute.

☞ **p.43, 44 ....**Print speed setting can be saved in memory for quick recall.

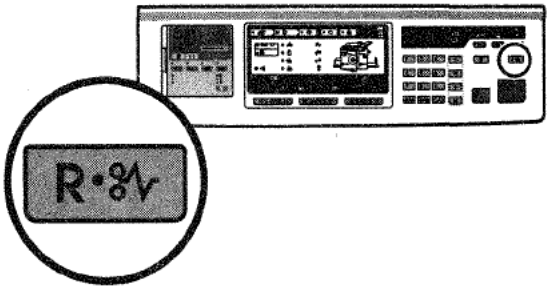
Holding down the R·⁂ (ALL RESET) key longer than one second returns print speed to the initial setting.

☞ **p.48 ....**You can customise initial settings.

Return to Initial Settings



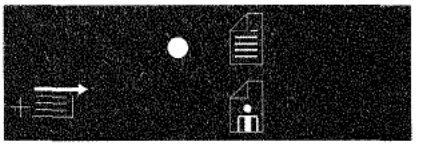
To return all the settings to initial status, including print position and reproduction ratio, hold down the R·☞ (ALL RESET) key for more than one second.



NOTE If you have customised the initial settings, they will be the ones recovered when you perform the procedure above.
☞ **p.48**

INITIAL SETTINGS (at time of purchase)

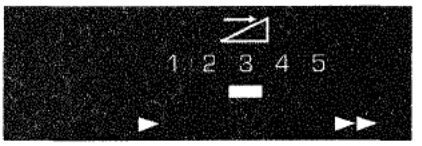
- Image Processing Mode Select →



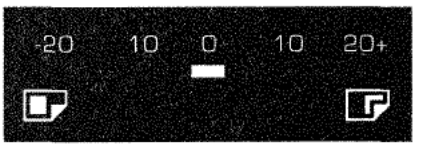
- Size Adjustment →

- Print Quantity Display →

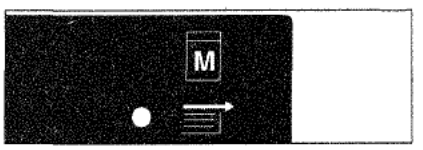
- Print Speed →



- Print Position →



- Master-Making/Print →

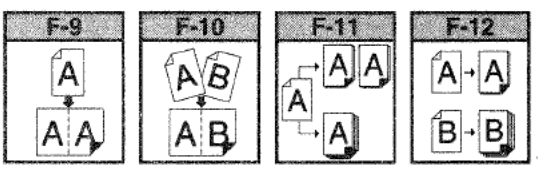


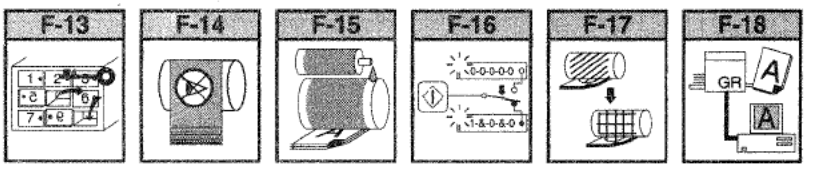
- Original Scanning Contrast →

Special Features

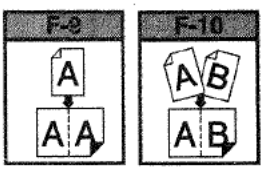
This section describes special features that may be used for special needs.

- **Printing Two Originals Side by Side.....34**
  - Printing the Same Original Two-Up F-9 34
  - Printing Two Different Originals Two-Up F-10 35
- **Automatic Sorting into Groups.....37**
  - Setting Up Programme A F-11 38
  - Setting Up Programme B F-12 40
- **Storing Settings in Memory F-13 .....42**
  - Saving Settings 43
  - Recalling Saved Settings 44
  - Deleting Saved Settings 45
- **Protecting Confidential Documents F-14 .....46**
- **Preventing Initial Paper Waste F-15 .....47**
- **Customising the Initial Settings F-16 .....48**
- **Changing Print Colour F-17 .....50**
  - Replacing Drum Units 50
- **Interfacing with a PC F-18 .....52**



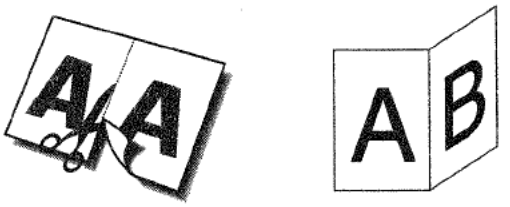


Printing Two Originals Side by Side



Two of the same (or two different) originals can be printed side by side and, if required, each original can have different settings : reproduction ratio (Reduce / Enlarge), scanning contrast, and processing.

☞ **p.43, 44 ....**Frequently used combinations of settings can be saved in memory for quick recall.



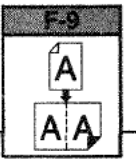
High-volume printing time can be cut in half by cutting or folding the Two-Up prints in half to finish your job.

☞ **p.26 ....**The Auto Print feature can be used with Two-Up printing.
☞ **p.43, 44 ....**The Two-Up feature can be saved in memory for quick recall.

NOTE Irregular size printing paper cannot be used with the Two-Up feature.

Holding down the R·ﾘｾｯﾄ (ALL RESET) key longer than one second returns the control panel to the initial settings.

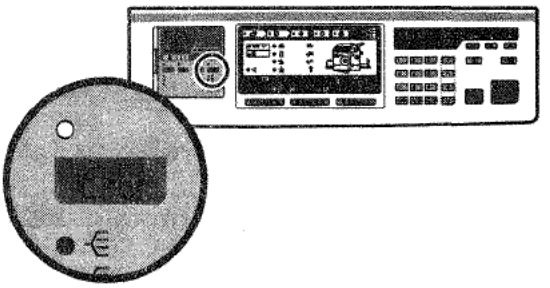
Printing the Same Original Two-Up



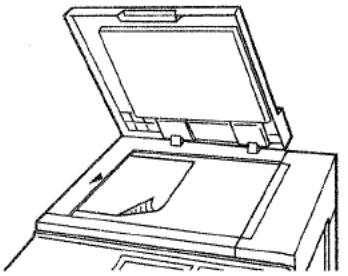
1 Press the TWO-UP key to activate the Two-Up feature.

The Two-Up indicator lights when the feature is active.

NOTE To cancel the Two-Up feature, press the key again.



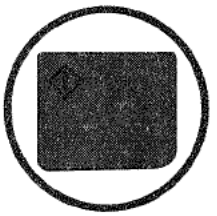
2 Place an original face-down on the Platen Glass.



3 Press the START key.

The original is scanned twice and the Two-Up master is made.
A sample Two-Up print is made.

NOTE If a 15 second beep sounds and a copy is produced that is half blank, change the initial setting of the Two-Up feature to cancel the interval time.



Printing Two Different Originals Two-Up

F-10

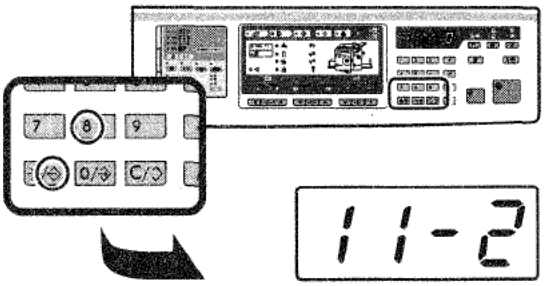
You can make Two-Up prints from two different originals by placing them on the Platen Glass side by side.

If bound documents are used or if different settings are required for each original place them on the Platen Glass individually. The machine scans the first original and then provides a 15 second period (a beep sounds) for you to place the second original.

NOTE If you press the ⓧ(STOP) key or do not place the second original during the 15 second period the test print will be produced with one side blank.

1 Change the initial setting of the Two-Up feature to provide a 15 second interval for placing the second original.

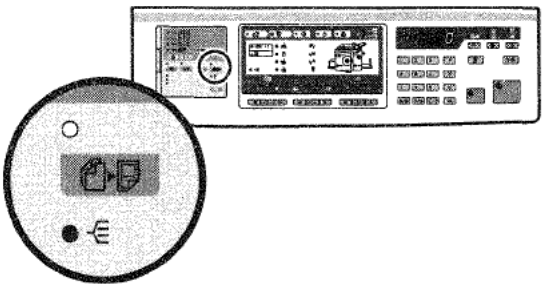
☞ p.48



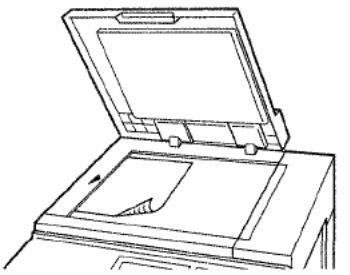
2 Press the TWO-UP key to activate the Two-Up feature.

The Two-Up indicator lights when the feature is active.

NOTE To cancel the Two-Up feature, press the key again.

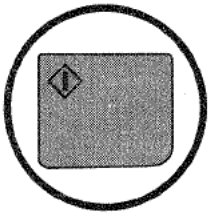


3 Place an original face down on the Platen Glass.



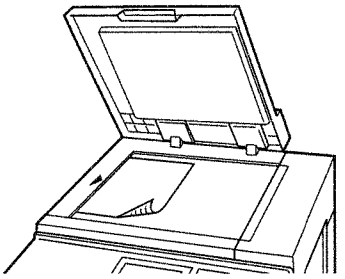
4 Press the START key.

After the first original is scanned, a 15 second beep sounds.

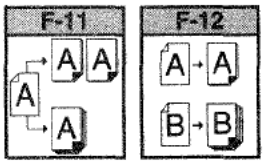


5 **During the 15 second beep enter the settings for the second original, if necessary and place the second original on the Platen Glass.**

After the second original is scanned, a test print is automatically printed.



Automatic Sorting into Groups



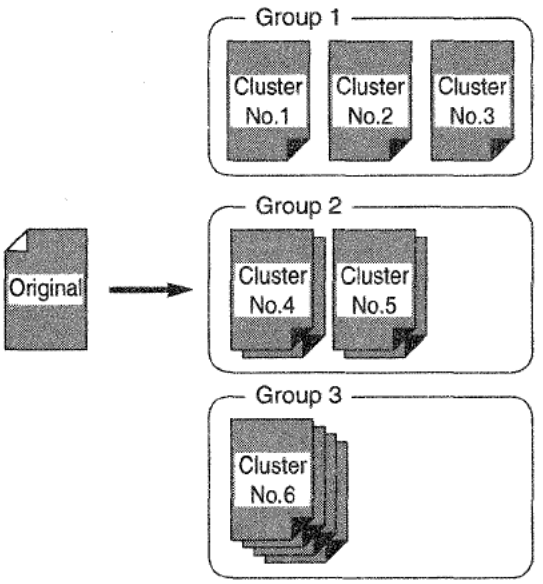
The Programmed Printing feature can be used to print and sort printed sheets into various groups automatically.
One of two programmed printing methods, Programme A or B, can be selected using the P (PROGRAMME) key.

☞ **p.43, 44....**Frequently used combinations of settings can be saved in memory for quick recall.
☞ **p.43, 44....**The Programmed printing setting can be saved in memory for quick recall.

NOTE The Job Separator (optional) is useful for Programmed printing.

Programme A

One original is printed in different quantities.

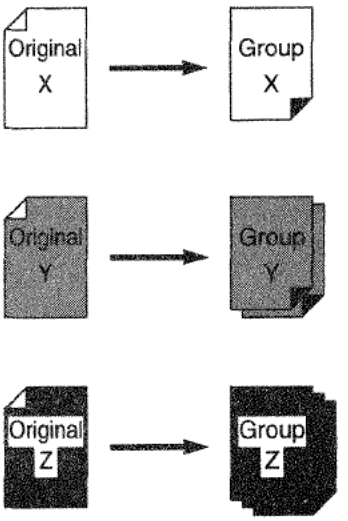


If more than one original is placed in the ADF Unit with the Auto Print feature activated, the programme set up for Programme A runs completely for each original until all the originals are printed and sorted into groups as specified in the programme.

NOTE The number of groups which can be set up in the Programme A differs depending on the number of clusters in each group.
The total of clusters in all groups is limited to "50."

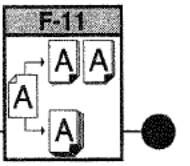
Programme B

Different originals are printed in different quantities.



NOTE Up to 50 groups can be set up, with a maximum of 9999 copies in each group.

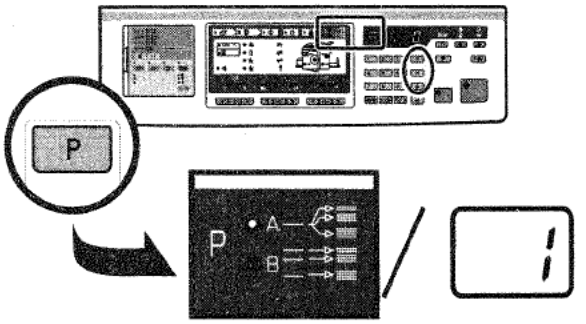
Setting Up Programme A



1 Press the PROGRAMME key.

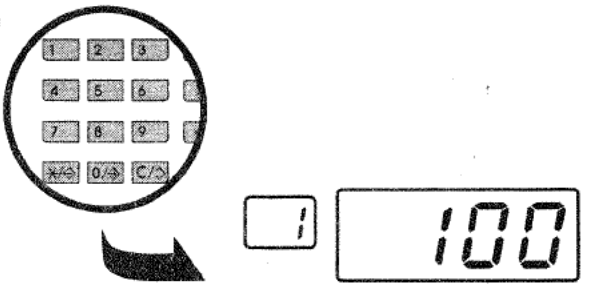
The Programme A indicator lights and *1* is shown in the Entry Number Display to identify the first group.

NOTE To cancel Programme A, press the PROGRAMME key again.



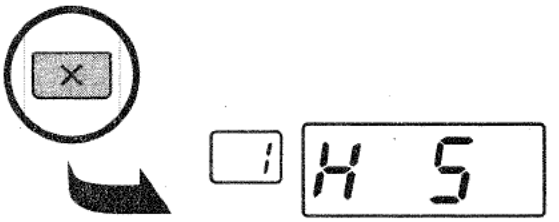
2 Input the number of copies to be printed for each cluster of the first group using the Print Quantity keys.

NOTE If you enter a number incorrectly, press the "C" key to reset the Print Quantity Display to zero, then enter the correct number.



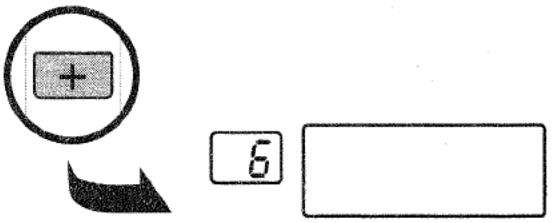
3 Press the "×" key and input the number of clusters of the first group.

If you press the "+" key instead of the "×" key at this stage, the quantity is automatically set at "1."



4 Press the "+" key to set the print quantity for the second group.

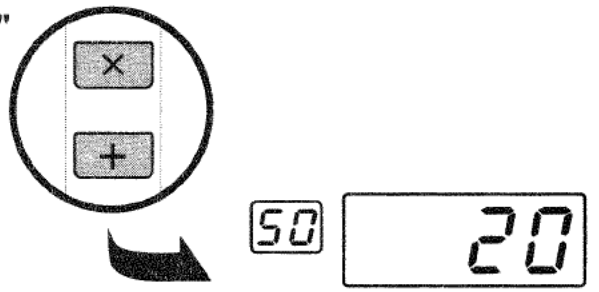
The youngest cluster No. to which the number of copies has not been assigned yet is indicated in the Entry Number Display and the Print Quantity Display is reset for the programming operation for the second group.



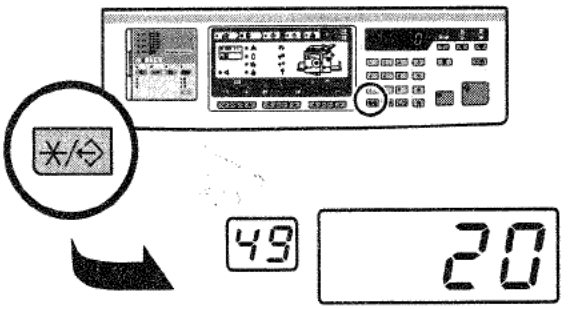
5 Use the Print Quantity keys, "×" key and "+" key and input print quantities and cluster numbers.

Up to 50 clusters can be used for this program.

NOTE If the P (PROGRAMME) key is pressed before a print quantity is specified for the last group all the Programme A settings will be cancelled.



6 Press the "✳" key to check or correct the number of copies to be printed for any cluster already set up.



Each time you press the "✳" key, the print quantity for the previous cluster is displayed.

NOTE If you incorrectly enter the number of copies for the displayed cluster, press the "C" key to reset the Print Quantity Display, then enter the correct number.

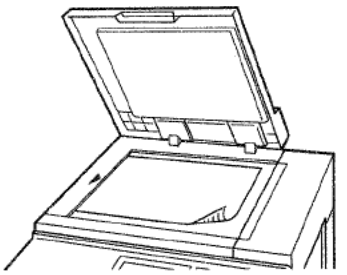
7 Enter other settings for Programme A.

Specify printing position, reproduction ratio, and so on. (The Two-Up feature can also be specified.)

NOTE If you want to print more than one original using the same Programme A settings, press the M+ (AUTO PRINT) key to activate the Auto Print feature.

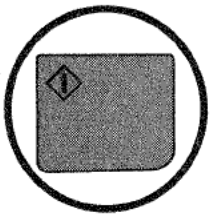
☞ **p.43, 44 ....**Before pressing the ◇ (START) key, save the programme in memory for quick recall if you use these programmed settings frequently.

8 Place an original face down on the Platen Glass.



NOTE If the optional ADF Unit is installed, more than one original can be placed on the ADF Tray.

9 Press the START key.



A test print is produced. If the Auto Print feature is not activated, press the START key again.

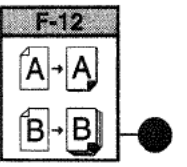
Copies are produced and sorted according to the programme, starting with the last group specified. When printing is completed, the current Programme A settings are automatically cleared.

To interrupt the programmed printing, press the ▽ (STOP) key.

NOTE If the Auto Print feature is activated, the current Programme A settings are recovered at the end of printing.

Holding down the R·🧹 (ALL RESET) key longer than one second returns the control panel to the initial settings and clears the programme.

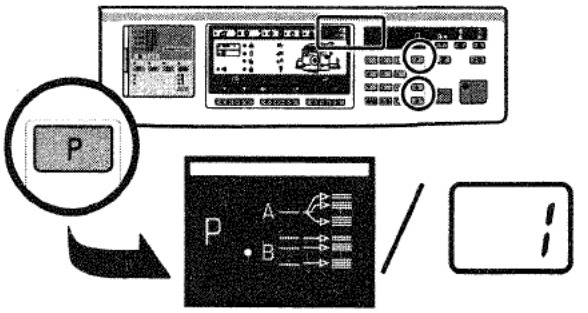
Setting Up Programme B



1 Press the PROGRAMME key twice.

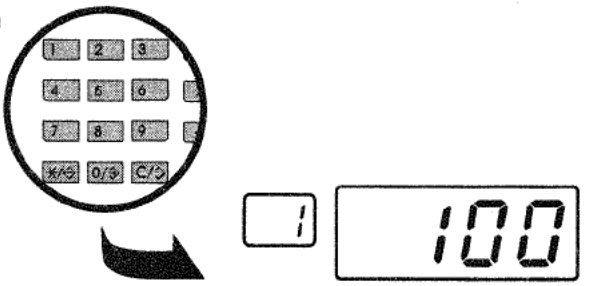
The Programme B indicator lights and *1* appears in the Entry Number Display to identify the first original.

NOTE To cancel Programme B, press the PROGRAMME key again.



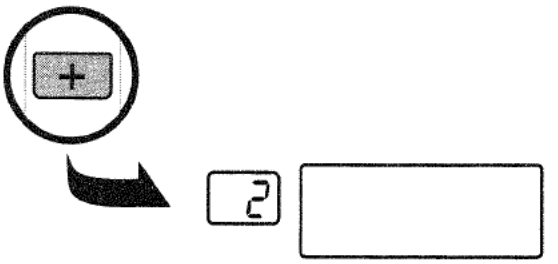
2 Input the number of copies to be printed for the first original using the Print Quantity keys.

NOTE If you enter a number incorrectly, press the C key to reset the Print Quantity Display to zero, then enter the correct number.



3 Press the "+" key to set the print quantity for the second original.

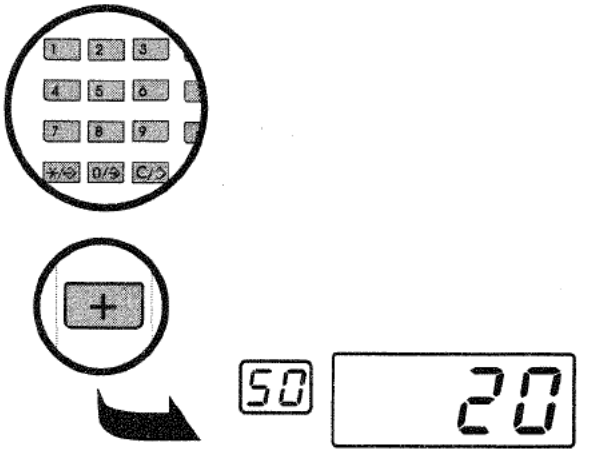
The Entry Number Display changes to *2* and the Print Quantity Display is reset for the second original.



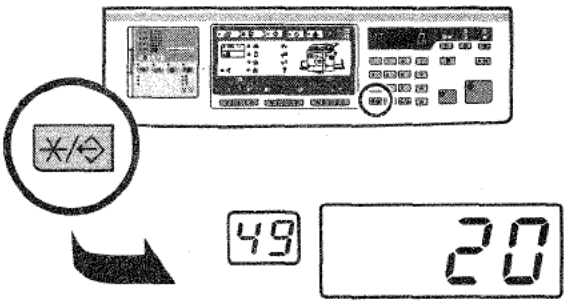
4 Input the print quantity for the remaining originals using the Print Quantity keys and the "+" key.

Up to 50 originals can be specified.

NOTE If the P (PROGRAMME) key is pressed before a print quantity is specified for the last original, all the Programme B settings will be cancelled.



5 Press the "✳" key to check or correct the number of copies to be printed for any original already set up.



Each time you press the "✳" key, the print quantity for the previous original is displayed.

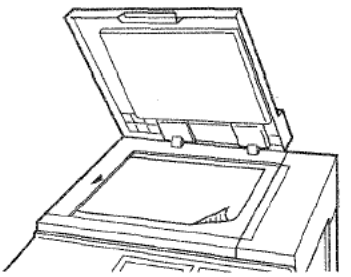
NOTE If you incorrectly enter the number of copies for the displayed original entry number, press the C key to reset the Print Quantity Display, then enter the correct number.

6 Enter other settings for Programme B.

Specify printing position, reproduction ratio, and so on. (The Two-Up feature can also be specified.)

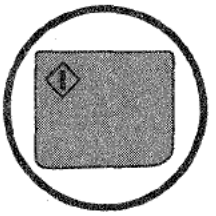
☞ **p.43, 44** ....Before pressing the ◇ (START) key, save the programme in memory for quick recall if you use these programmed settings frequently.

7 Place an original face down on the Platen Glass.



NOTE If the optional ADF Unit is installed, all programmed originals can be placed on the ADF Tray at one time.

8 Press the START key.



Prints are produced according to the specified programme starting with the last original specified. When printing is completed for the current original place the next original on the Platen Glass and press the START key again.

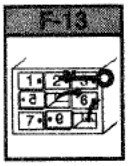
NOTE If the optional ADF Unit is used, this procedure is not required.

When printing is completed for all originals, the current Programme B settings are automatically cleared.

To interrupt this programmed printing, press the ▽ (STOP) key.

Holding down the R·𝒮𝓋 (ALL RESET) key longer than one second returns the control panel to the initial settings and clears the programme.

Storing Settings in Memory



The Memory feature is a flexible tool for automating frequently used or complicated combinations of settings.

You can store up to 20 combinations of frequently used or complex print-job settings and apply them to new print jobs whenever necessary.

SETTINGS and FEATURES

Any combination of the following settings and features can be saved in memory for quick recall.

= Processing-related features =

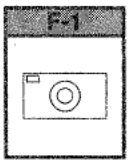
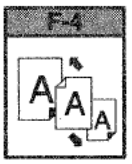
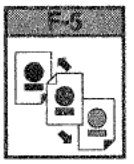


PHOTO
☞ p.24

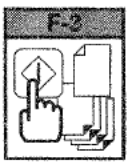


SIZE ADJUST
☞ p.28

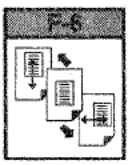


CONTRAST ADJUST
☞ p.29

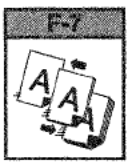
= Printing-related features =



AUTO PRINT
☞ p.26



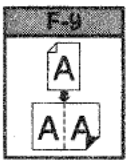
PRINT POSITION
☞ p.30



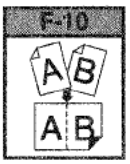
PRINT SPEED
☞ p.31

= Print quantity setting =

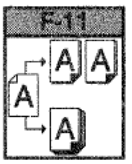
= Special features =



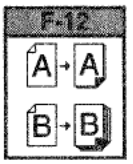
TWO-UP PRINT 1
☞ p.34



TWO-UP PRINT 2
☞ p.35



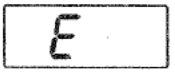
PROGRAMME PRINT A
☞ p.38



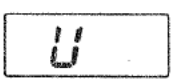
PROGRAMME PRINT B
☞ p.40

Display Guide for the Memory Feature

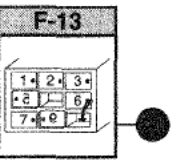
Indicates the current Register Number, which appears in the Entry Number Display.



Indicates the displayed Register Number is vacant (not occupied with setting data), which appears in the Print Quantity Display.



Indicates the displayed Register Number is occupied with setting data, which also appears in the Print Quantity Display.



Saving Settings

Once settings are saved in memory, the combination remains registered until the "C" key is used to remove it from memory.

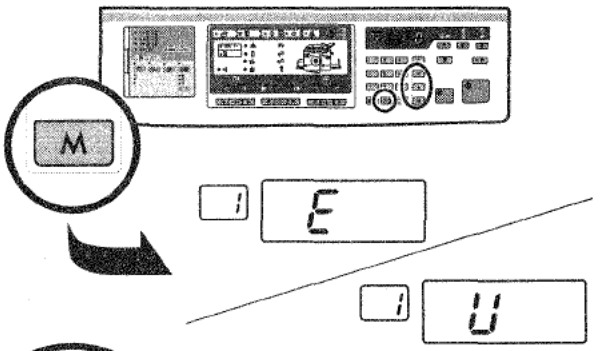
NOTE It is recommended that you maintain a list of the Register Numbers in use and their associated settings.

1 Set up desired settings.

2 Press the MEMORY key to activate the Memory feature.

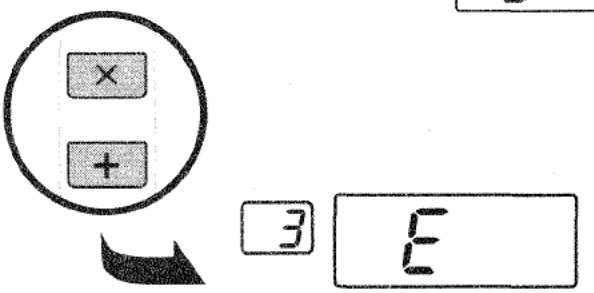
The Entry Number Display shows *1*, and either *E* or *U* is shown in the Print Quantity Display.

If *E* appears in the Print Quantity Display, skip step 3 and go to step 4.



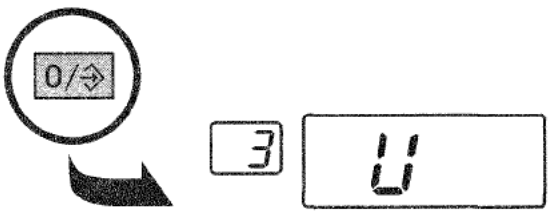
3 Select a vacant Register Number for the combination of settings entered.

Press the "+" or "×" key to find a vacant Register Number.

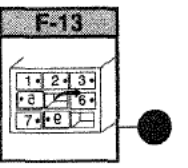


4 Press the SAVE key to save the settings to the selected Register Number.

A long beep sounds and *U* is displayed in the Print Quantity Display for 1 second to indicate that the settings have been registered.
Then the Memory feature is deactivated.



NOTE If you try to save the settings to an occupied Register Number (which is accompanied by the *U* display), the *U* flashes and short beeps sound for 2 seconds when you press the SAVE key. Press the "+" or "×" key to find a vacant Register Number or erase the current settings from the occupied Register Number and save the new settings.

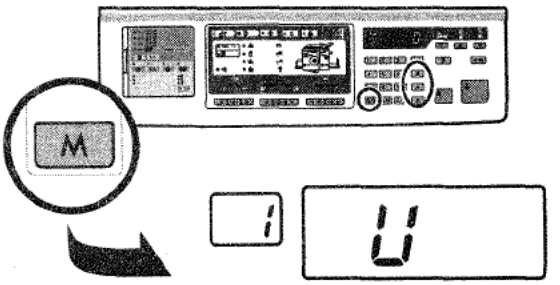


Recalling Saved Settings

Use the CALL key to apply settings that are saved in memory.

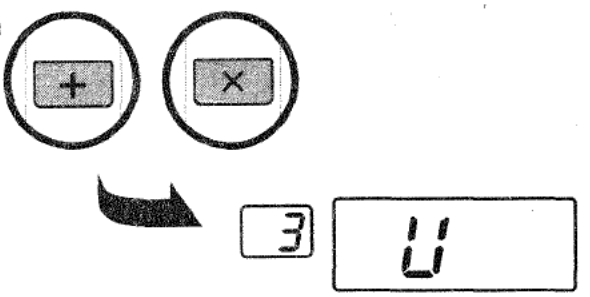
1 Press the MEMORY key to activate the Memory feature.

The Entry Number Display shows *I*.



2 Select the Register Number with the desired settings using the "+" or "×" key.

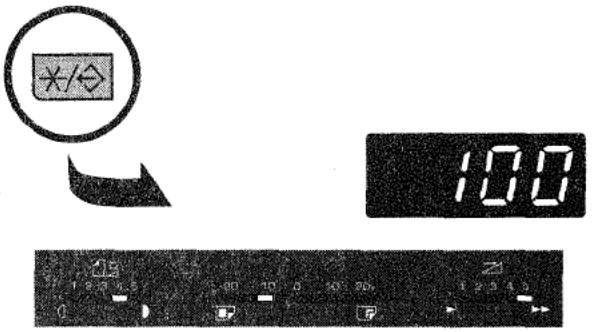
NOTE It is recommended that you maintain a list of the Register Numbers currently in use and their associated settings.

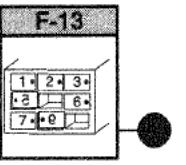


3 Press the CALL key.

The settings will be recalled from memory, and the indicators and displays on the control panel will light accordingly. A long beep sounds and the Memory feature is deactivated.

NOTE If you press the CALL key to recall settings from a vacant Register Number (which is accompanied by the *E* display), the *E* flashes and short beeps sound for 2 seconds.
Press the "+" or "×" key to find an occupied Register Number.



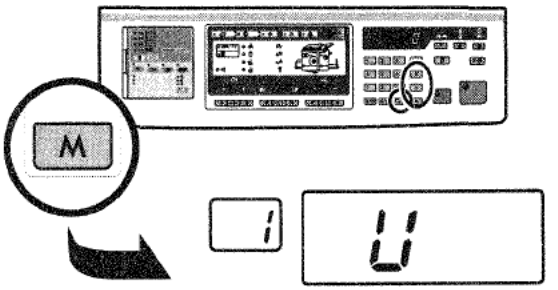


Deleting Saved Settings

Use the "C" key to clear all settings from an occupied Register Number.

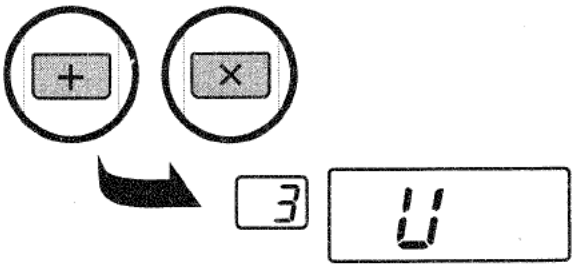
1 Press the MEMORY key to activate the Memory feature.

The Entry Number Display shows *I*.



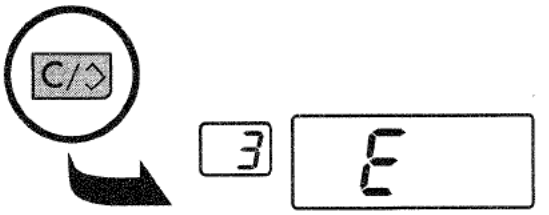
2 Use the "+" or "×" key to select the Register Number that you want to clear.

NOTE It is recommended that you maintain a list of the Register Numbers in use and their associated settings.



3 Press the "C" key.

The settings are erased from the selected Register Number and the *E* appears in the Print Quantity Display.

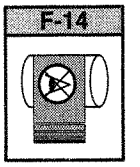


NOTE If you press the "C" key to clear a vacant Register Number (which is accompanied by the *E* display), the *E* flashes and short beeps sound for 2 seconds.
Press the "+" or "×" key to find an occupied Register Number.

As the Memory feature remains active, you can make further memory settings or recall saved settings.

4 To deactivate the Memory feature, press the MEMORY key again.

Protecting Confidential Documents



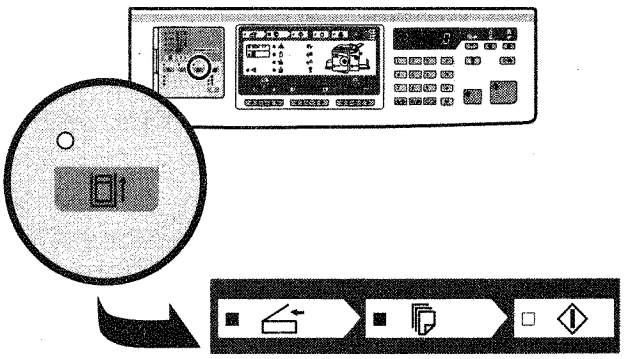
After printing is complete, the master remains on the Drum Unit. Copies of this master can be printed at any time by pressing the ◇ (START) key. To protect confidential documents from unauthorised duplication, press the CONFIDENTIAL key to discard the master after printing.

1 Confirm that printing has ended.

2 Press the CONFIDENTIAL key.

The CONFIDENTIAL indicator lights.

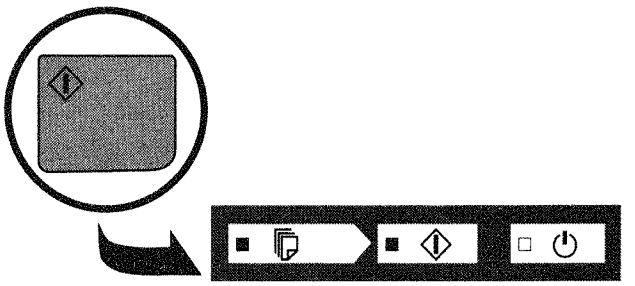
NOTE To cancel the Confidential feature, press the ▽ (STOP) key or the CONFIDENTIAL key again.



3 Press the START key.

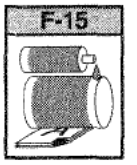
The current master is discarded and replaced with a blank one. The CONFIDENTIAL indicator goes out and the Confidential feature is cancelled.

NOTE The master is discarded into the Master Disposal Box.



☞ **p.58** ....For strictly confidential documents, discard the contents of the Master Disposal Box.

Preventing Initial Paper Waste



When the machine is not used for several hours, ink may dry on the Drum Unit. This can cause the first few sheets to be faint or blurred when printing starts again.

The Automatic Idle feature assures consistent print quality even after a long break and saves you from wasting paper due to faint images in printing.

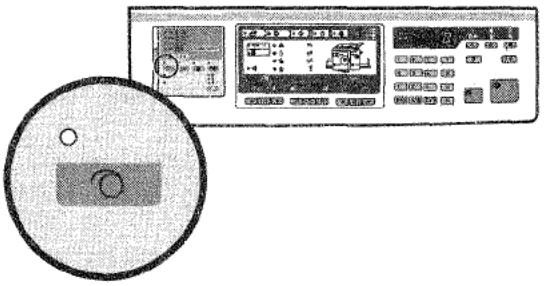
Whenever the Automatic Idle indicator is lit, the Automatic Idle feature is on. If you want to use this feature when the indicator is not lit, press the AUTO IDLE key to activate it.

This feature is automatically activated if the power is switched on when the machine unit has not been used for a certain period (6 to 12 hours).

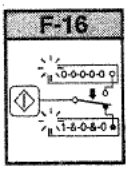
NOTE You can select the minimum period required for the automatic activation of the Automatic Idle feature.

☞ **p.48** ....You can customise initial settings.

NOTE When ordinary or test printing takes place after a long break, the Automatic Idle feature is ignored even when the Automatic Idle indicator is lit.



Customising the Initial Settings



You can change some of the initial settings to which the machine status will return when the power is turned on or the R·ﾎﾙ (ALL RESET) key is held down for more than one second.

NOTE When you customise the initial settings, they remain valid until they are changed again.

INITIAL SETTINGS OPEN TO CHANGES

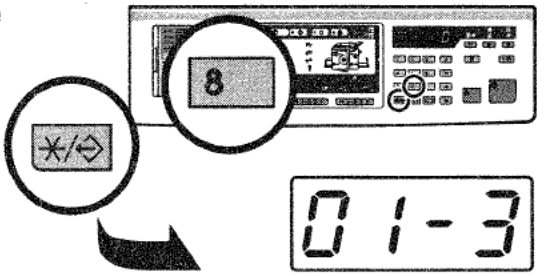
Item No.	Title	Description	Choices	Ref.Page
01	PRINT SPEED	Selects the initial print speed (copies per minutes).	1(=60), 2(=80), [3(=100),] 4(=120), 5(=130[cpm])	p.31
02	AUTO PRINT FEATURE	Selects the initial status of the Auto print feature.	[1(OFF),] 2(ON)	p.26
03	EJECTION GUIDE ARRANGING	Activates/Deactivates the Ejection guides at paper exit.	[1(AUTO),] 2(OFF)	
04	DISPLAYED PRINT QUANTITY	Selects the initial number appearing in Print quantity display.	[1(0000),] 2(0001)	
05	MASTER-MAKING AREA LIMIT	Selects the maximum image area for a master sheet.	[1(VARIABLE),] 2(A3), 3(B4), 4(A4)	p.14
06	AUTO RESET TIME	Gives/Ignores the period for automatic initialisation.	[1(NONE),] 2(5 Minutes)	p.32
07	MINIMUM PRINT QUANTITY	Selects the minimum print quantity which should be produced from one master.	[1(1),] 2(10), 3(20), 4(30) [copies]	
08	AUTO IDLE PERIOD	Selects the period required for automatic activation of the Auto-idle feature.	[1(12 Hours),] 2(6Hours), 3(OFF <No limit>)	p.47
09	AUTO DOCUMENT FEED	Requires the ◇ (START) key or Not, to feed the following original placed in the ADF unit without the Auto print feature activated.	[1(OFF) <START key required>,] 2(ON) <START key not required>	
10	IMAGE PROCESSING	Selects the initial image processing mode.	[LINE,] DUO	p.24
11	TWO-UP ON-STAGE INTERVAL	Gives/Ignores the interval required for replacing the original on the Platen glass for Two-up printing.	[1(NONE <No interval>),] 2(15 Seconds)	p.35
13	JOB SEPARATOR CONNECTION	Opens/Closes the data line for the optional Job Separator. Select "YES" when attaching the Job Sepalator.	[1(NO <Close date line>),] 2(YES <Open data line>)	p.74

* The framed item is the default setting.

1 Press "8" while holding down the CALL key.

Access the changeable initial settings.

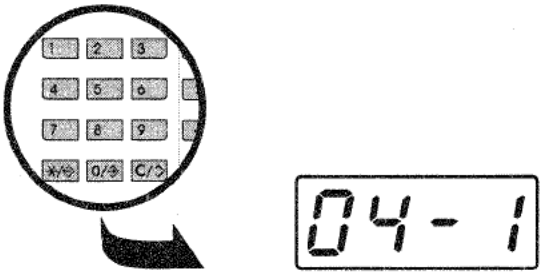
Item number *01* and a setting-status number *3* appear on the Print Quantity Display.



2 Enter the item number that you want to customise.

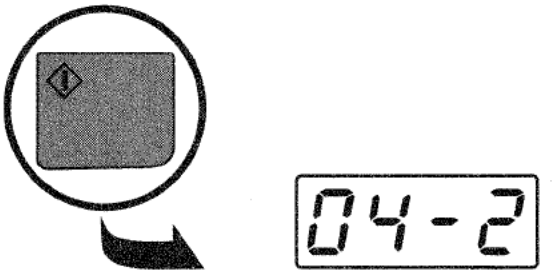
Use the Print Quantity keys.

NOTE For item numbers under 10, press "0" first.



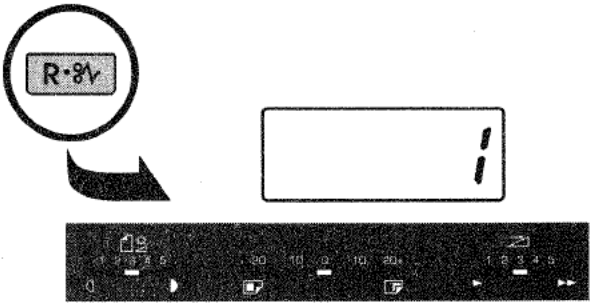
3 Press the START key.

Each time you press the START key, the setting is changed. Select a desired setting.

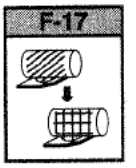


4 Press the R·8V (ALL RESET) key.

After customising the settings, hold down the ALL RESET key for more than one second.
The custom settings appear as the initial settings when the power is turned ON or the ALL RESET key is held down for more than one second.



Changing Print Colour



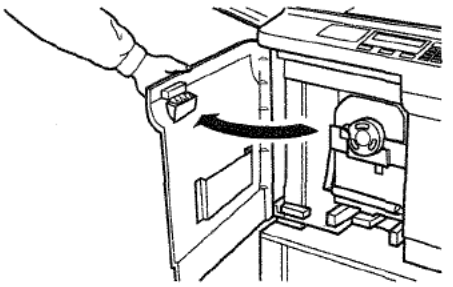
To print with another colour of ink, purchase an optional colour Drum Unit and replace the entire Drum.
When a Drum Unit other than the Black one is in place, the COLOUR DRUM indicator lights on the control panel.

⚠ **Caution** Only use Risograph GR Drums.

NOTE
- Change Drum Units with the power ON.
- Store the removed Drum Unit horizontally in the Drum Unit case.
- Never store Drum Units in an upright position.

Replacing Drum Units

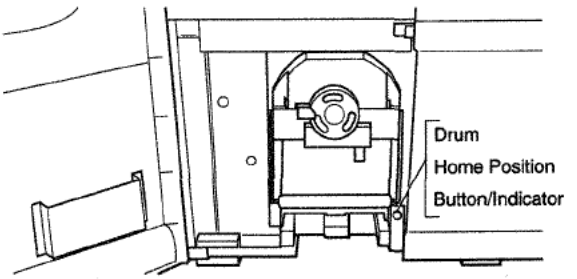
1 Open the Front Cover.



2 Be sure that the Drum Home Position button/indicator is lit.

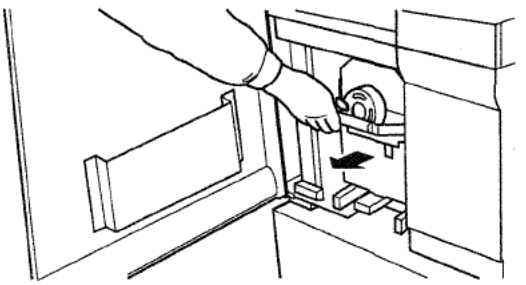
If not lit, press the Drum Home Position button/indicator. The Drum will rotate and stop at the preset home position, making the indicator light.

NOTE If the Drum Home Position button/indicator is not lit, the Drum Unit cannot be pulled out.



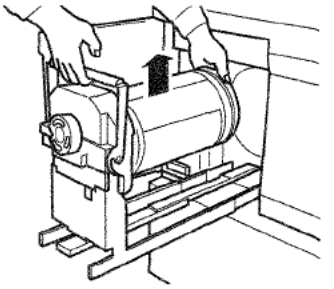
3 Pull out the Drum Unit.

Raise the Drum Handle until it is level and pull out the Drum Unit until it stops.



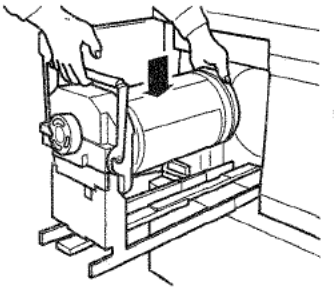
4 Remove the Drum Unit from the machine.

Lift the Drum Unit with both hands to remove it.



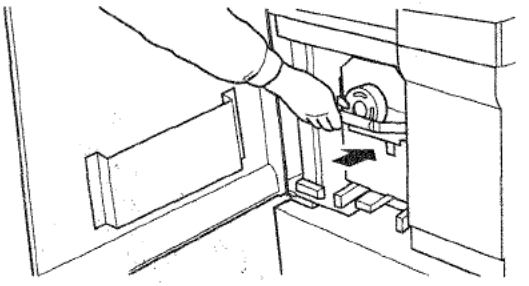
5 Load another colour Drum Unit onto the holder.

Insert another Drum Unit into the holder horizontally, holding the handle and body with both hands.

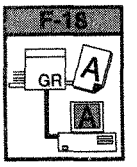


6 Install the Drum Unit in the machine.

With the Drum Handle in its raised position, push the Drum Unit into the machine until it stops. Then lower the handle and close the Front Cover.



Interfacing with a PC

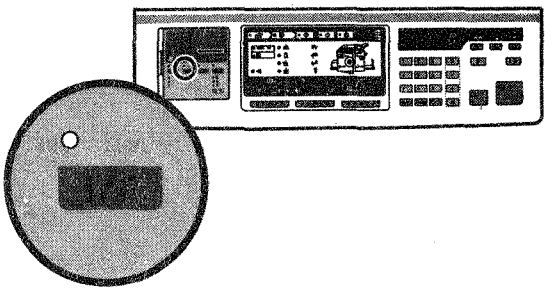


Your RISOgraph can be interfaced with PCs (such as IBM and compatibles and Apple Macintosh) via the dedicated printer controller.

When your machine is interfaced with a PC, the I/F key opens the interface line to the PC.

For more details on how to interface with PCs, consult the manual for the RISOgraph computer interface system.

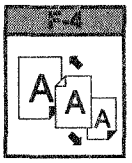
1 Open the sub-panel cover and press the I/F key.



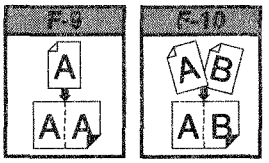
The corresponding indicator lights up when the interface line to a PC is open.

NOTE The following features become inactive when the I/F key is selected:

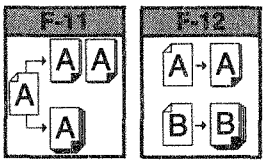
- SIZE ADJUSTMENT FEATURE -



- TWO-UP PRINTING FEATURE -



-PROGRAMMED PRINTING FEATURE -



Replenishing and Disposing Supplies

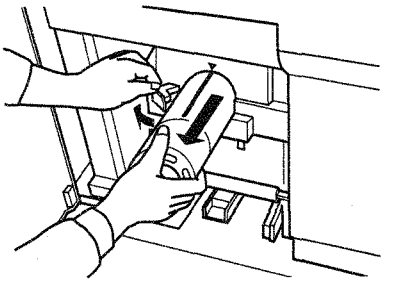
This section describes how to replenish supplies when they have been depleted and how to dispose of them.

- **Replacing the Ink Cartridge 54**
- **Replacing the Master Roll 56**
- **Emptying the Master Disposal Box 58**

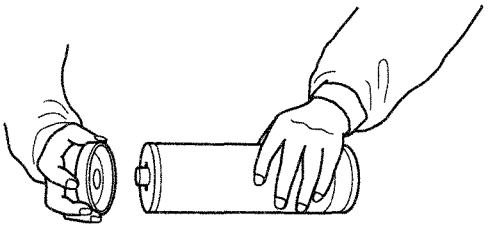
Replacing the Ink Cartridge

1 Open the Front Cover, and remove the empty Ink Cartridge from the Drum Unit.

Release the Ink Cartridge Locking Lever (green in colour) and remove the empty Ink Cartridge from the Drum Unit.

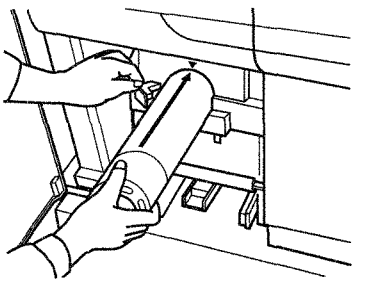


2 Remove the cap from a new Ink Cartridge.

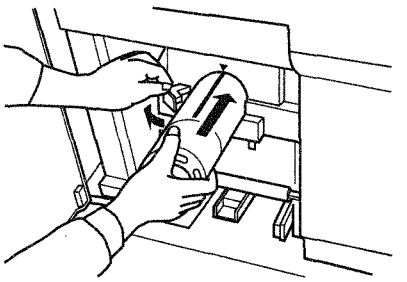


3 Align the arrow on the new Ink Cartridge with the arrow marked on the Drum.

While pushing the Ink Cartridge Locking Lever aside, rotate the Ink Cartridge until its arrow meets the arrow marked on the Drum.

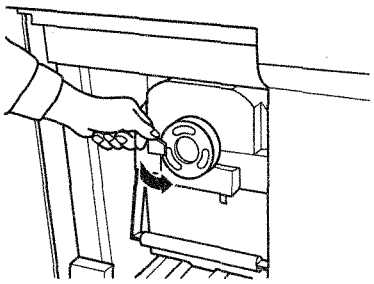


4 Insert the new Ink Cartridge into the Drum.



5 Lock the Ink Cartridge into place and close the Front Cover.

Return the Ink Cartridge Locking Lever to its initial position to keep the Ink Cartridge in place. Also, press on the lower right-hand area of the Front Cover to close it securely.



Important!

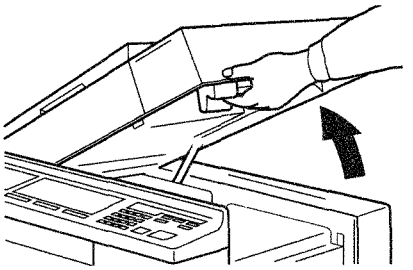
- **Never insert a cartridge of a different colour ink.**
  Always be sure that the colour of the new Ink Cartridge is the same as that of the one being replaced. If you want to change the print colour you must replace the entire Drum Unit.

- **There is ink on the master that is wrapped around the Drum Unit. Keep your hands and clothing away from it.**
  If your hands come into contact with ink, wash them immediately and thoroughly.

Replacing the Master Roll

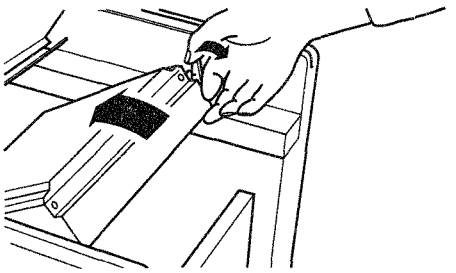
1 Raise the Scanner Table.

Hold the Scanner Table Release Lever and raise the Scanner Table until it stops.



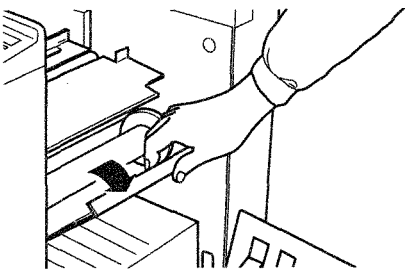
2 Open the Master Loading Unit.

Open the Master Loading Unit by pulling down the green Master Loading Unit Release Lever, which is located on the right side of the unit.



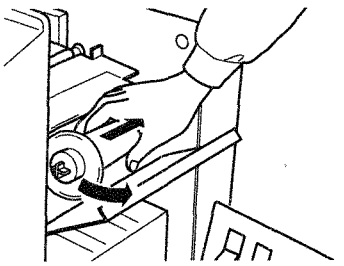
3 Open the Master Roll Cover.

Pull the Master Roll Cover down.



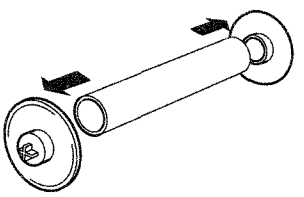
4 Remove the depleted Master Roll.

Pushing the depleted Master Roll to the right, pull it toward you and remove it from the supporter.



5 Remove both left and right flanges.

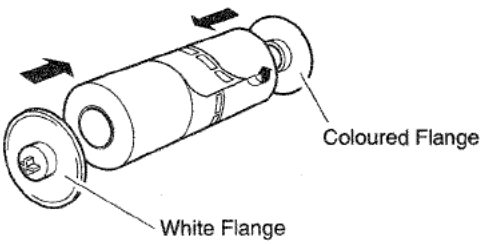
Remove both the left and the right flanges from the depleted Master Roll.



6 Attach the existing flanges to a new Master Roll.

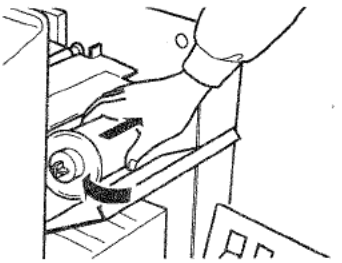
Unpack a new Master Roll.

Attach the flanges removed from the depleted Master Roll to the new one, with the coloured flange to the right end and the white one to the left end. Then unwrap the new Master Roll.



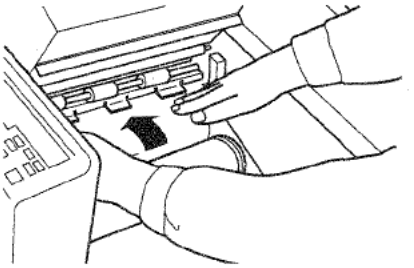
7 Install the new Master Roll.

Pushing the coloured flange onto the right-hand flange holder, slide the white flange securely into the centre groove of the supporter.



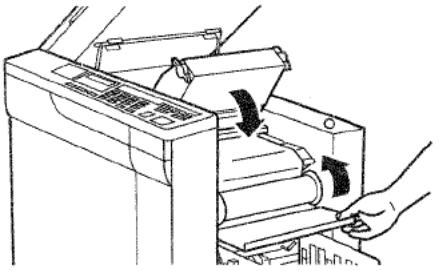
8 Insert the leading edge of the Master Roll under the green film.

Unroll the Master Roll by pulling on the leading edge and insert the leading edge under the green film.



9 Close the Master Roll Cover.

Close the Master Roll Cover gently.

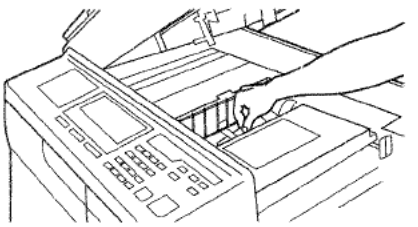


10 Close the Master Loading Unit and the Scanner Table.

Close the Master Loading Unit gently and return the Scanner Table to the original position.

Important!

If the leading edge of the Master Roll is inserted too far beyond the green film the excess portion will be automatically cut off. If the strip that has been cut off remains inside, the CHECK SETTINGS indicator flashes on the control panel to advise you to remove it. Be sure to remove the cut-off strip.

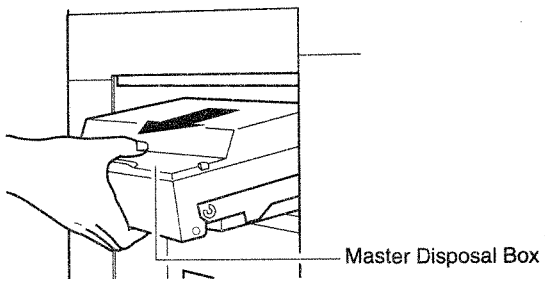


Emptying the Master Disposal Box

1 Pull out the Master Disposal Box.

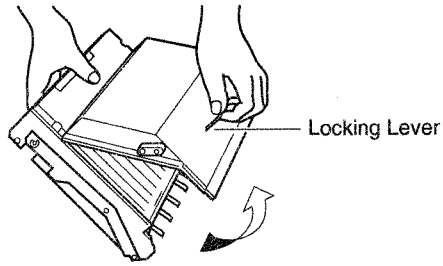
Hold together both the upper and lower handles of the Master Disposal Box and pull it out.

NOTE When carrying the Master Disposal Box, be sure to hold the handles so as not to drop used masters.



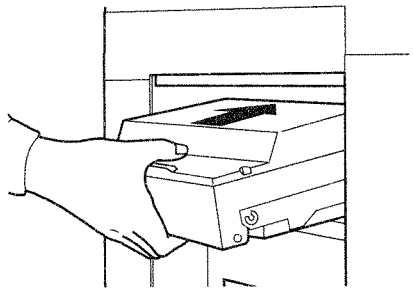
2 Discard used masters.

While holding the handles, open the cover by pulling the locking lever up, then discard used masters. Return the locking lever and close the cover.



3 Insert the Master Disposal Box into position.

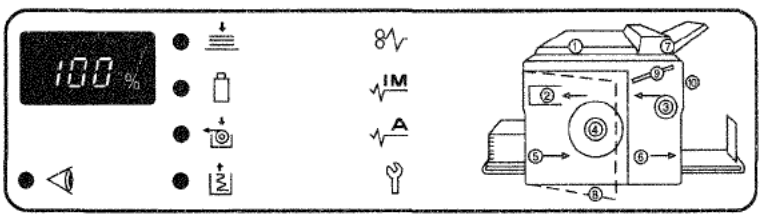
Holding the handles, insert the Master Disposal Box into position as far as it will go. Then release the handles.



Advisory Displays

This section describes how to deal with advisory displays indicated on the control panel. If you need help in following an advice consult the reference charts in the index below and refer to the corresponding page.

Index



Location	Page
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⑧	p.60
⑨	p.60
⑩	p.60
No indication	p.63/p.64

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p.62

p.62

p.62

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Location	Page
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⑦ ⑨	p.62

p.61/p.64

Code No. Reference

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[C25]~[C27]	p.63
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[C36]~[C39]	p.64
[C41]~[C44]	p.62
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C72	p.61

Code No.	Page
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E68	p.61
E78	p.61

The code numbers in the brackets appear only when you press the "＊" key.

Check Settings

Displays			Description and Action	Reference
Indicator	**Location**	**Code No.**		
	⑩	[C51]	An operator card is required to be inserted into the Key card counter (optional). **Action** Insert it.	**p.74**
	④⑧	[C52]	The Drum unit is not properly installed. **Action** Slide it all the way into place, holding the handle.	**p.50**
	④⑧	[C53]	The Ink cartridge is not properly installed. **Action** Insert it completely and hook the locking lever.	**p.54**
	③	[C54]	Master is not properly loaded. **Action** Install a Master roll, if required, and insert the lead edge under the green plastic film tabs.	**p.56**
	⑧	[C55]	The Front cover is not properly closed. **Action** Close it tightly, pressing on the lower right-hand area.	
	⑦	[C56]	The Scanner table is not properly closed. **Action** Close it tightly, holding it down.	
	②	[C57]	The Master disposal box is not properly loaded. **Action** Insert it completely, holding the handles.	**p.58**
	⑨	[C58]	The Master loading unit is open. **Action** Open the Scanner table and close the Master loading unit securely.	
	⑦	[C59]	The ADF (optional) cover is not properly closed. **Action** Close it tightly.	

The code numbers in the brackets appear only when you press the "＊" key.

Check Settings

Displays			Description and Action	Reference
Indicator	**Location**	**Code No.**		
	④⑧	C61	This size Drum unit is not acceptable for this machine. **Action** Install one of the correct size. If you don't know what Drum unit is of the correct size, contact your service representative.	**p.50**
	④⑧	C62	This type of Drum unit is not acceptable for this machine. **Action** Install the correct Drum unit. If you don't know which Drum unit is the correct type, contact your service representative.	**p.50**
	④⑧	C63	This type of Ink cartridge is not acceptable for this machine. **Action** Insert the correct type. If you don't know which Ink cartridge is the correct type, contact your service representative.	**p.54**
	no indication	C69	The cover of the Sheet feeder SF3000 (optional) is not properly closed. **Action** Close it tightly and press the R•☆ (ALL RESET) key.	**p.74**
	no indication	C72	The cover of the sorter (optional) is not properly closed. **Action** Close it securely.	**p.74**

Requires Technical Assistance

Displays			Description and Action	Reference
Indicator	**Location**	**Code No.**		
	no indication	E1 ⟆ E6, E11 ⟆ E17, E19, E20, E50, E68, E78	**Action** Contact your authorised service representative and report the trouble code (E##).	
	no indication	E7 ⟆ E10, E18	**Action** Turn the power off and then on again. If this code numder still appears, contact your authorised service representative and report the trouble code (E##).	

Check Supplies and Master Disposal Box

Displays			Description and Action	Reference
Indicator	**Location**	**Code No.**		
	④	[C41]	The Ink cartridge is empty. **Action** Replace it with a new one.	**p.54**
	③	[C42]	The Master roll is depleted. **Action** Install a new one.	**p.56**
	②	[C43]	The Master disposal box is full of used masters. **Action** Pull out the box and discard used masters.	**p.58**
	no indication	[C44]	Paper is depleted and/or not loaded in the Paper feed tray. **Action** Load paper in the Paper feed tray.	**p.16**

The code numbers in the brackets appear only when you press the "✱" key.

Error in the Master-Making Area

Displays			Description and Action	Reference
Indicator	**Location**	**Code No.**		
	⑦⑨	[C21]	Master has not been properly loaded on the Drum. **Action** Open the Master loading unit and wind up the Master roll. Reload master. After closing the Master loading unit, press the ◇ (START) key to restart the master-making operation.	**p.56**
	⑦⑨	[C22]	Master has been misfed. **Action** Open the Master loading unit and wind up the Master roll. Reload master.	**p.56**
	④⑧	[C23]	Master was not cut correctly. **Action** Open the Front cover and pull out the Drum unit to check whether a master was properly loaded on it. If not, remove the master and restart the operation from master-making.	**p.50**

The code numbers in the brackets appear only when you press the "✱" key.

Error in the Master-Making Area

Displays			Description and Action	Reference
Indicator	**Location**	**Code No.**		
	no indication	C24	A cut-off piece of master has been left inside the Master loading unit. **Action** Open the Scanner table and Master loading unit and remove the piece.	**p.57**
	②⑧	[C25]	A used master remains on the Drum. **Action** Open the Front cover, pull out the Drum unit and remove the remaining master from it. Replace the Drum unit and press the ◇ (START) key to restart the master-making operation.	**p.50**
	②	[C26]	A used master is stuck at the entrance of the Master disposal box. **Action** Pull out the Master disposal box and look inside. If a master remains there, remove it.	**p.58**

The code numbers in the brackets appear only when you press the "✱" key.

Error in the Printing Area

Displays			Description and Action	Reference
Indicator	**Location**	**Code No.**		
	no indication	[C27]	There is no master on the Drum unit. **Action** Press the R·⁂ (ALL RESET) key. Then place an original on the Platen glass or the ADF tray and start operation from master-making.	
	⑤⑧	[C31]	Paper is jammed in the paper feed area. **Action** Open the Front cover, pull out the Drum unit and remove the jammed paper.	**p.50**
	⑥⑧	[C32]	Paper is jammed under the Drum or in the paper ejection area. **Action** Open the Front cover, pull out the Drum unit and remove the jammed paper.	**p.50**

The code numbers in the brackets appear only when you press the "✱" key.

Error in the Printing Area

Displays			Description and Action	Reference
Indicator	**Location**	**Code No.**		
	⑤	[C33]	Paper was not fed or was improperly fed. **Action** Check paper and the Paper feed tray and press the R·⅋ (ALL RESET) key.	**p.16**
	④⑧	[C34]	Paper has stuck to the Drum. **Action** Open the Front cover, pull out the Drum unit and remove the stuck paper.	**p.50**
	no indication	C60	The safety switch above or under the Paper feed tray has been activated. **Action** Check the paper feed area for any obstructions and clear.	**p.16**
A	no indication	C71	Paper is jammed in the sorter (optional). **Action** Open the cover of the sorter and remove the paper.	

The code numbers in the brackets appear only when you press the "✱" key.

NOTE TO PREVENT PAPER JAMS

- Use flat printing paper that is free of folds. If curled paper is unavoidable, place it so that the curl faces down.
  ☞ **p.14**
- When using smooth paper for printing, set the Paper feed pressure adjustment lever to "⚝" (CARD).
  ☞ **p.16**

Error in the Optinal ADF Unit

Displays			Description and Action	Reference
Indicator	**Location**	**Code No.**		
	⑦	[C36]	An original was not fed, or was improperly fed. **Action** Open the ADF cover by holding the ADF cover release lever. Then remove the original and reset.	**p.72**
	⑦	[C37]	An original is jammed at the entrance of the ADF unit. **Action** Open the ADF cover by holding the ADF cover release lever. Then remove the original and reset.	**p.72**
	⑦	[C38]	An original is too long for the ADF unit. **Action** Open the ADF cover by holding the ADF cover release lever. Then remove the original and place it on the Platen glass instead.	**p.72**
	⑦	[C39]	An original is jammed at the exit of the ADF unit. **Action** Open the ADF cover by holding the ADF cover release lever. Then remove the original and reset.	**p.72**

The code numbers in the brackets appear only when you press the "✱" key.

Troubleshooting Tips

This section describes how to take care of problems that may arise with your RISOgraph.

Check the following "Tips List" and the related items before calling your authorised service representative.

Tips List

- The machine does not start even when the power switch is pressed. 66
- The CHECK SETTINGS indicator flashes and ⑧ lights up in the Machine Monitor Display even when the Front cover is closed. 66
- There is no image on prints. 66
- The unwanted background of an original is picked up on the prints. 66
- Prints are incomplete; some images are missing or unclear. 66
- Printed images are excessively faint or blurred. 66
- Vertical blank lines are found on printed copies. 67
- The back of finished prints are smudged with ink. 67
- Printing paper sticks to the drum surface. 67
- Printing paper slips when it is fed. 67

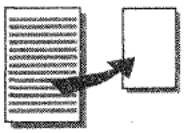
☐ The machine does not start even when the power switch is pressed.

Action · Check whether the electrical cord is firmly connected to an electrical socket.
· Check whether the electrical cord is connected to the machine.
· Check whether the commercial electrical circuit breaker is normal.

☐ The CHECK SETTINGS indicator flashes and ⑧ lights up in the Machine Monitor Display even when the Front cover is closed.

· There is a metal plate in the lower right-hand section of the Front cover. Unless this plate is in direct contact with the magnet on the lower right-hand part of the machine, the CHECK SETTINGS indicator keeps flashing in the Check & Error Display.
Action Press on the lower right-hand area of the Front cover to close it tightly.

☐ There is no image on the prints.



· Check whether the original is correctly placed.
Action Be sure it is placed face down.
☞p.22
· Check whether the master is correctly placed.
Action Be sure that it is placed with the leading edge unrolled from below.
☞p.57

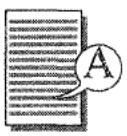
☐ The unwanted background of an original is picked up on the prints.

· If newspaper or coloured paper is used as an original, the background might have been picked up on prints.
Action Press the SCANNING CONTRAST Adjustment key (◁) to make the scanning contrast lighter. Then reset the original and press the ◇ (START) key.
☞p.29

☐ Prints are incomplete; some images are missing or unclear.

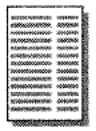
· The Platen glass is stained with correction fluid or glue.
Action Open the Platen cover and clean the Platen glass with a soft cloth or tissue.
☞p.71
· Something sticks on or under the master on the Drum.
Action Pull out the Drum and remove the stuck item.
☞p.50
· The Platen cover was open during scanning.
Action Images were not scanned properly because of exposure to light. Be sure that the Platen cover is closed during scanning.

☐ Printed images are excessively faint or blurred.



· If the machine is not used for a long period of time, ink on the surface of the Drum will dry. Dry ink on the Drum Unit may cause faint or blurred printing.
Action Press the (TEST PRINT) key several times until a clear printed image is obtained.
☞p.25
Action Activate the (Automatic Idle) feature before operation to prevent light images that may occur after periods of non-use.
☞p.47
· Light originals result in light images.
Action Press the SCANNING CONTRAST Adjustment key (▷) to make scanning contrast darker. Then reset the original and press the ◇ (START) key.
☞p.29
· If the temperature is low (below 15°C) or the Ink cartridges are stored in a cold place, ink may not flow smoothly.
Action Warm the room or Ink cartridge before operating the machine.

☐ Vertical blank lines are found on printed copies.

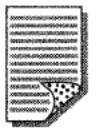


- The Thermal print head (the device that makes the master) may be smudged with paper powder from the master.
  Action Open the Master loading unit and clean the Thermal print head with a soft cloth or tissue.
  ☞p.71
- The Platen glass is stained with correction fluid or dust.
  Action Open the Platen cover and gently clean the Platen glass with a soft cloth or tissue.
  ☞p.71

If the optional ADF unit is installed:

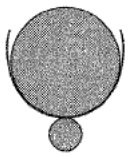
- The ADF scanner glass is smudged with dust or correction fluid.
  Action Open the ADF cover and clean the glass with a soft cloth or tissue.
  ☞p.72

☐ The back of finished prints are smudged with ink.



- The rubber Press roller, which keeps the printing paper pressed against the Drum during printing, is stained with ink.
  Action Remove the Drum unit and clean the roller gently with a soft cloth or tissue.
  ☞p.72
- The Feed tray paper guides are set at maximum width.
  Action Adjust the Feed tray paper guides to fit the width of the printing paper.
  ☞p.16

☐ Printing paper sticks to the drum surface.



Action
- Use recommended printing paper.
  ☞p.14
- Lower the vertical print position with the PRINT POSITION Adjustment key ◁.
  ☞p.30
- Replace the original in the reverse direction and restart printing from the beginning (master-making).

☐ Printing paper slips when it is fed.

- Misfeeding of printing paper might have caused a paper jam.
  Action Set the Paper feed pressure adjustment lever to " ⌯ " (CARD).
  ☞p.16

Maintenance

This section describes the actions to be taken to maintain your machine in proper working order.

- **Cautions Concerning Maintenance 70**
  - Replacing the Lithium Battery 70
- **Cleaning : Preventing Defective Prints 71**
  - Cleaning the Thermal Print Head.....71
  - Cleaning the Platen Glass and Platen Cover.....71
  - Cleaning the Press Roller 71
  - Cleaning the Machine Exterior.....72
  - Cleaning the Optinal ADF Scanner Glass.....72
  - Cleaning the White Roller 72

Cautions Concerning Maintenance

⚠ WARNING [To Avoid Personal Injury During Handling]

- DO NOT allow unauthorised persons to make adjustments or repairs.
- DO NOT remove any fixed covers.
- CALL your dealer immediately if you have any questions or problems with machine.
- Precision parts and driving mechanisms are contained in the machine. Do not perform actions other than those described in this manual.
- Don't make any modifications to the unit or remove parts.
- When you want to move the machine, contact your dealer.

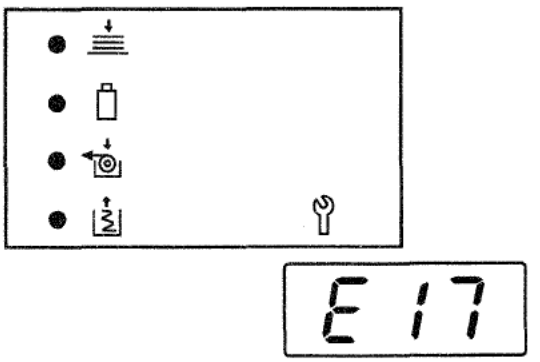
⚠ Caution [To Avoid Mechanical Problems]

- Neither RISO nor its dealer is responsible for maintenance service performed by non-RISO-authorised personnel.

Replacing the Lithium Battery

The lithium battery in your machine should last about five years.

When the battery is losing power, the Indicator will flash and the advice code number *E17* will appear in the Print Quantity Display.



⚠ Caution **The lithium battery must be replaced by a trained and authorised service technician.**

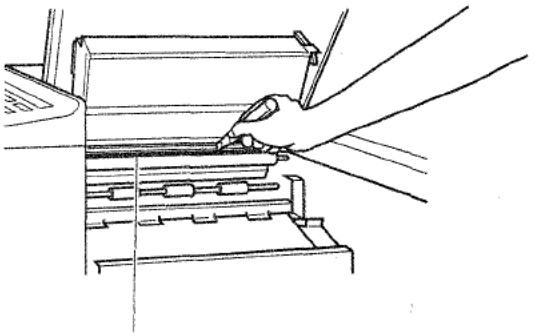
Cleaning : Preventing Defective Prints

Cleaning the Thermal Print Head

Clean the Thermal Print Head after you have replaced two Master rolls.
Lift up the Original feed table and open the Master loading unit. Then gently wipe the Thermal Print Head (inside the unit) several times with a soft cloth or tissue.

NOTE For more effective cleaning, dampen a soft cloth or tissue with a small amount of Isopropyl Alcohol before wiping the Thermal Print Head.

⚠ **Caution** **Since the Thermal Print Head is very delicate, avoid knocking or scratching with a hard/sharp object.**



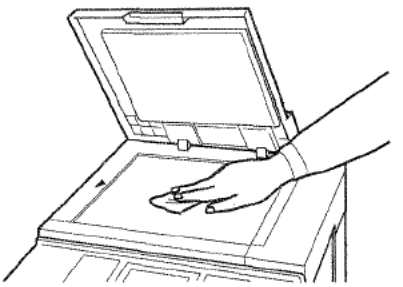
Thermal Print Head

Cleaning the Platen Glass and Platen Cover

If the Platen Glass and/or Platen Cover is stained imperfections may appear on prints.

Wipe them gently with a soft cloth or tissue.

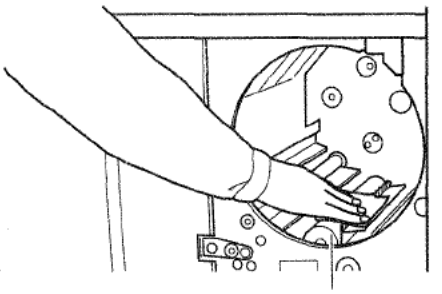
⚠ **Caution** **Since the Platen Glass is very delicate, avoid knocking or scratching with a hard/sharp object.**



Cleaning the Press Roller

If the rubber Press Roller (that presses the printing paper against the Drum unit) is stained, smudged strips may appear on the back sides of prints.

In such a case, wipe the Press Roller thoroughly with a soft cloth dampened with Isopropyl Alcohol, or feed scrap paper with a blank master loaded on the Drum unit using the Confidential feature.

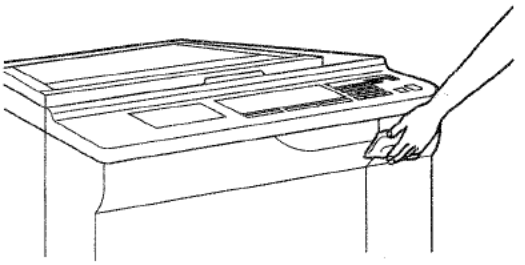


Press Roller

Cleaning the Machine Exterior

To remove dust, wipe the machine exterior periodically with a soft cloth.

To remove stains, use an appropriate cleanser recommended by your authorised service representative.

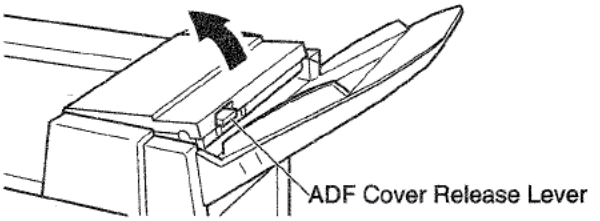


⚠ **Caution** **The machine exterior is plastic. Never use alcohol or solvent for cleaning.**

Cleaning the Optional ADF Scanner Glass

1 Open the ADF Cover.

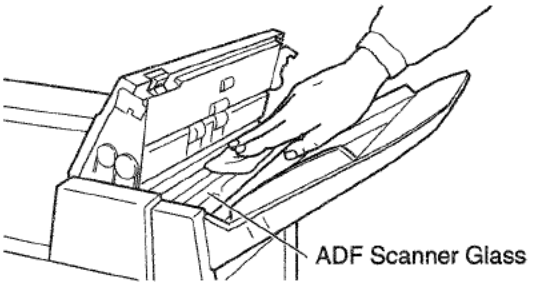
Open the ADF Cover while holding the ADF Cover Release Lever.



2 Wipe the Scanner Glass.

Gently wipe the Scanner Glass several times with a soft cloth or tissue.

NOTE For more effective cleaning, dampen a soft cloth or tissue with a small amount of Isopropyl Alcohol before wiping the Scanner Glass.

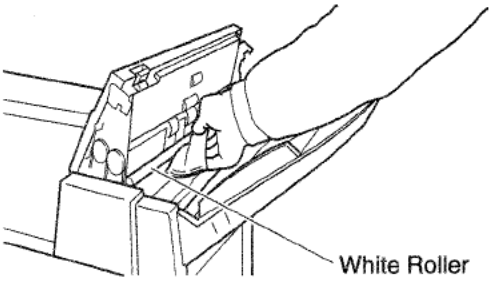


⚠ **Caution** **Since the Scanner Glass is very delicate, avoid knocking or scratching with a hard/sharp object.**

Cleaning the White Roller

1 Open the ADF Cover.

2 Whilst rotating the White Roller, gently wipe it with a soft cloth or tissue.



Appendices

This section includes information on options and specifications.

- **Optional Accessories** **74**
- **Specification** **75**

Optional Accessories

A variety of optional accessories are available to enhance the capabilities of your RISOgraph GR2710.

Colour Drum Units (RISOGRAPH GR Drum)

A variety of colours are available, such as blue, red, green and brown. Each Drum Unit has its own case for storage.

☞ **p.50**.....By exchanging the Drum Units, you can achieve multi-colour prints.

Sheet Feeder SF3000

3000 sheets of printing paper can be loaded in this sheet feeder, sparing you from frequent paper replenishment when printing high volumes.

Job Separator III

This accessory efficiently sorts groups of prints with strips of paper as they are printed. The Job Separator is attached next to the Paper receiving tray.

Computer Interface

The Computer Interface enables you to combine all the advantages of your desktop publishing software with the high speed efficiency and low cost printing benefits of your RISOgraph Digital Printer.

RISOGRAPH ADF III

The Automatic Document Feed (ADF) Unit automatically feeds up to 50 sheets for scanning. When you use the ADF Unit with the Auto Print, Programmed Printing, Two-Up, or Memory features, multiple print jobs can be set up and completed automatically.

NOTE If the optional ADF Unit is installed, be sure to use the Optional ADF Unit Replacement Pages provided.

RISOGRAPH Sorter TM2400

This compact sorter is capable of handling up to A3-sized paper. It is equipped with an electric stapler so that you can efficiently create booklets from finished prints.

Key Card Counter III

This counter shows the number of copies made and the number of masters consumed within a preset period of time. This can help you control costs.

Specification

Processing	Book Top Digital Printer with Digital Scanner
First Print Speed	A3 original : 23 seconds A4 original : 17 seconds
Print Speed	5 selectable print speeds (60 to 130 copies per minute)
Scanning Resolution	300 dpi (300 dpi <Lateral> x 400 dpi <Vertical>)
Original Type	Bound documents or sheets
Original Size	50 x 90 mm (business card) to 297 x 420 mm (A3)
Original Weight	10 kg or less
Paper Size	A6 to A3
Paper Weight	46 g/㎡ to 210 g/㎡
Image Area	B4 Drum - 250 x 353 mm A4 Drum - 198 x 286 mm
Paper Capacity	Feed : 1000 sheets (64 g/㎡) Receiving : 1000 sheets (64 g/㎡)
Enlargement Parameters	141%, 122% and 116%
Reduction Parameters	94%, 87%, 82% and 71%
Features	· Print Speed control · Confidential mode · Two-Up printing · Programmed printing · Memory mode · Photo mode · Interface capabilities · Automatic idle · Scanning contrast adjustment · Automatic Ejection guide control
Print Colours	A wide range of colours including : Black, red, yellow, blue, green, brown, purple, bright red, medium blue, federal blue, grey, etc.
Optional Accessories	Colour Drum Units, ADF Ⅲ, TM2400 Sorter, Sheet Feeder SF3000, Job Separator Ⅲ, Key Card Counter Ⅲ and Computer Interface
Power Source	220-240 V AC, 50/60 Hz
Requirements	3A
Weight	Approx. 102 kg
Dimensions (W x D x H)	1290 x 653 x 634mm (in use) 745 x 653 x 634 mm (stored)

NOTE The specifications are subject to change without prior notice. Please acknowledge that the illustrations and descriptions in this manual may differ from the actual machine, due to the change in specifications.

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Overview of Features

Your RISOgraph is a high-quality digital printer that is as easy to use as a copier.

- **Easy to Use and Fully Automatic**
  The control panel shows you the options available and the current status of the machine by utilising indicator lights and easy-to-read digital displays. There is also a convenient "Machine Monitor" for troubleshooting.

  Your Risograph processes your original by first making a master and then printing.

- **Print Speed Control**
  Any of five print speeds can be selected for optimum performance.

- **Confidential Feature**
  A confidential original can be printed and the master can be automatically discarded to prevent further, unauthorized printing.

- **Colour Printing Options**
  Optional ink colours are available, by simply changing the Drum Unit.

- **Enlargement and Reduction Capabilities**
  Prints can be reduced or enlarged according to your needs. Pre-set standard reduction and enlargement are available (e.g., A3→A4).

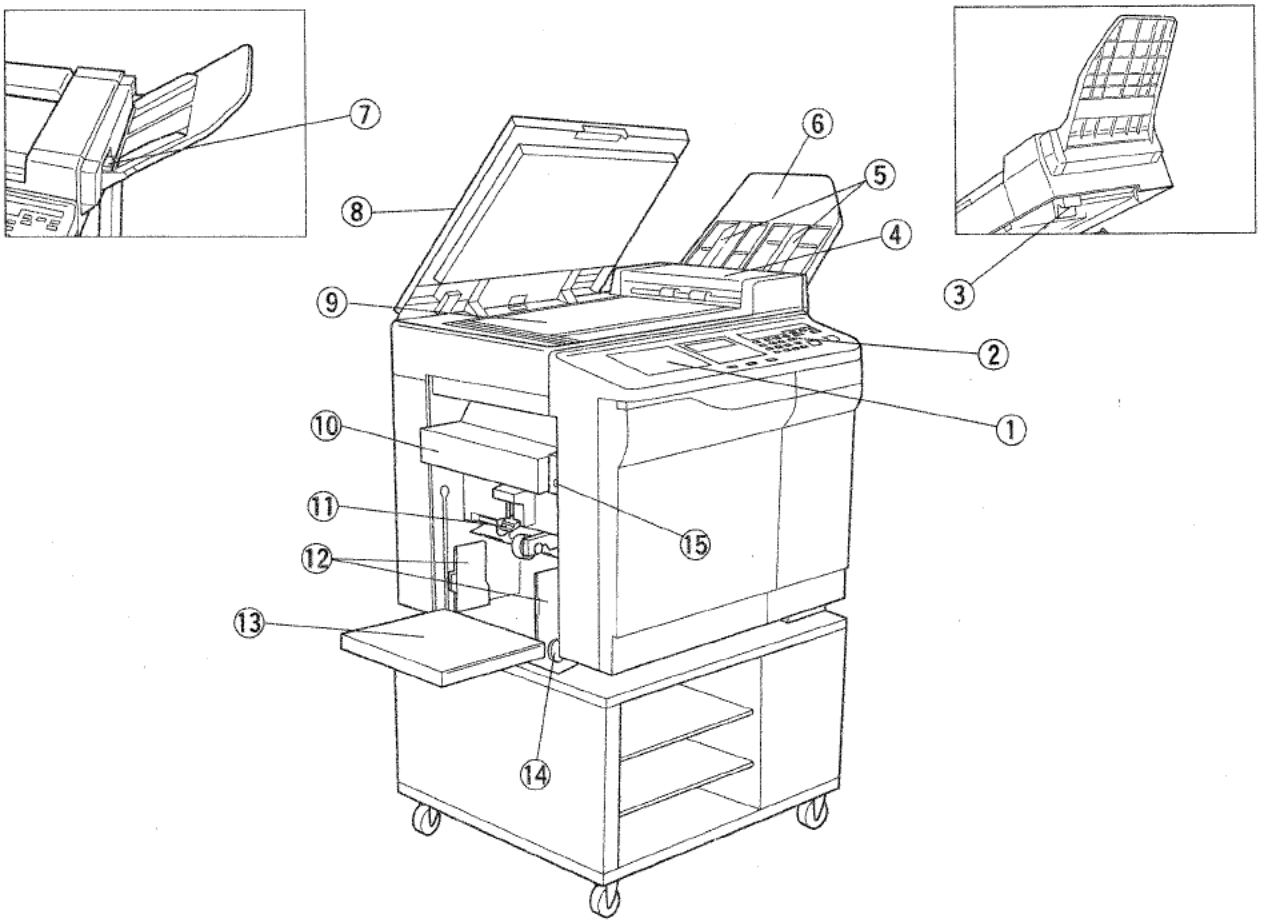
- **Programmable Print Groupings**
  Simple control panel entries can automate different types of groupings to save time finishing your print jobs.

- **Programmable Print Jobs**
  Frequently used or complex print job settings can be stored in memory for instant recall.

- **Two-Up Printing**
  Originals can be printed side by side on a single sheet.

- **Automatic Idle**
  This feature prevents faint or blurred images on the first few sheets when printing starts again after a period of idle time.

Knowing the Parts and Components



Upper Section

① **Sub Control Panel** (☞ p.11)

② **Main Control Panel** (☞ p.10)

③ **Scanner Table Release Lever**
Unlocks and opens the Scanner Table.

④ **ADF (Automatic Document Feeder) Unit** (☞ p.15)
Feeds sheet originals into the scanner.

⑤ **ADF Original Guides** (☞ p.22)
Holds and guides sheet originals for feeding.

⑥ **ADF Tray** (☞ p.22)
Holds sheet originals for the ADF.

⑦ **ADF Cover Release Lever** (☞ p.72)
Release an original for removal when it is jammed in the ADF Unit.

⑧ **Platen Cover** (☞ p.71)
Receives originals scanned through the ADF and secures the original placed on the Platen Glass.

⑨ **Platen Glass** (☞ p.71)

Paper Feed Section

⑩ **Master Disposal Box** (☞ p.58)
Holds discarded masters.

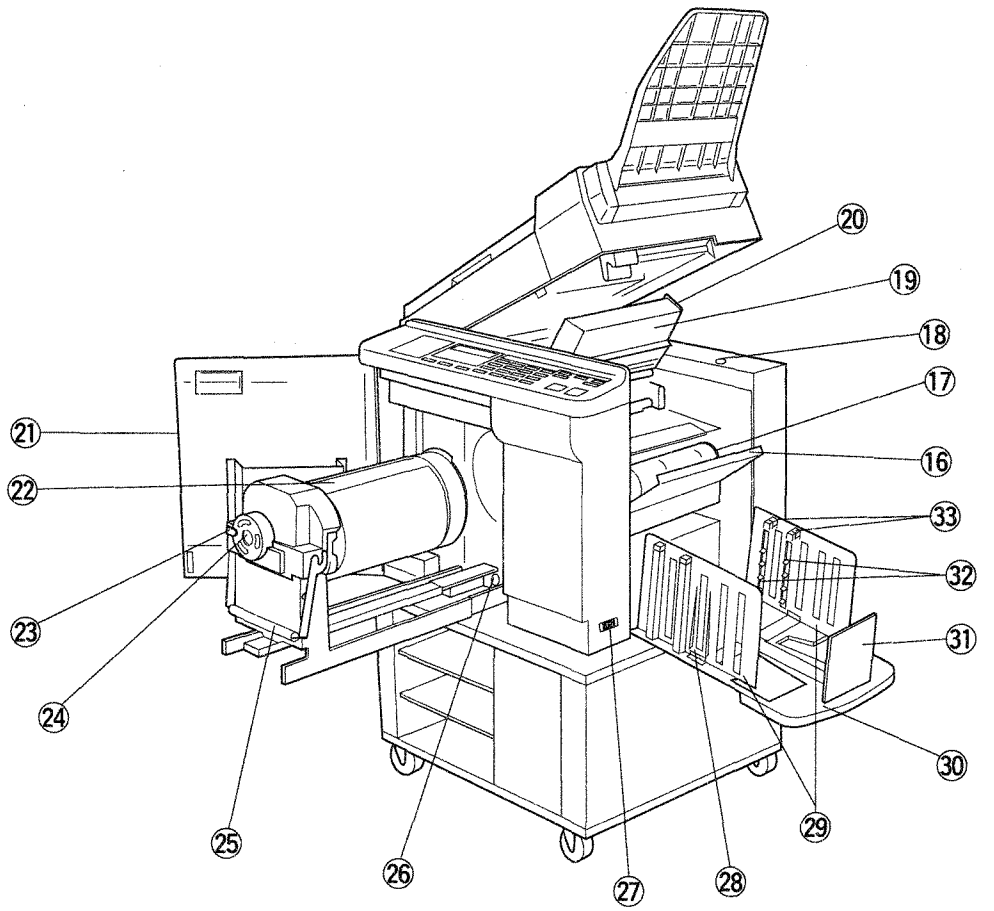
⑪ **Paper Feed Pressure Adjustment Lever** (☞ p.16)
Adjusts the paper feed pressure according to the paper being used.

⑫ **Feed Tray Paper Guides** (☞ p.16)
Holds and guides paper.

⑬ **Paper Feed Tray** (☞ p.16)

⑭ **Left/Right Print Position Adjustment Dial** (☞ p.30)
Moves the print position to the left or right.

⑮ **Feed Tray Down Button** (☞ p.16)
Lowers the Paper Feed Tray for replacing or adding printing paper.



Master-Making Section

⑯ **Master Roll Cover (☞ p.56)**
Protects the Master Roll.

⑰ **Master Roll (☞ p.56)**

⑱ **Master Loading Button (☞ p.56)**
Loads as well as cuts the master.

⑲ **Master Loading Unit (☞ p.56)**
Makes a master from the scanned original.

⑳ **Master Loading Unit Release Lever (☞ p.56)**
Opens the Master Loading Unit.

Front Section

㉑ **Front Cover**

㉒ **Drum Unit (☞ p.50)**
Holds the master on its surface.

㉓ **Ink Cartridge Locking Lever (☞ p.54)**
Secures the Ink Cartridge in position.

㉔ **Ink Cartridge (☞ p.54)**

㉕ **Drum Handle (☞ p.50)**
Used to pull the Drum Unit out of the machine.

㉖ **Drum Home Position Button/Indicator (☞ p.50)**
Positions and unlocks the Drum Unit for removal.

㉗ **Main Power Switch (☞ p.22)**

Paper Receiving Section

㉘ **Receiving Tray Paper Guide Adjustment Knob (☞ p.17)**

㉙ **Receiving Tray Paper Guides (☞ p.17)**
Aligns printed paper neatly.

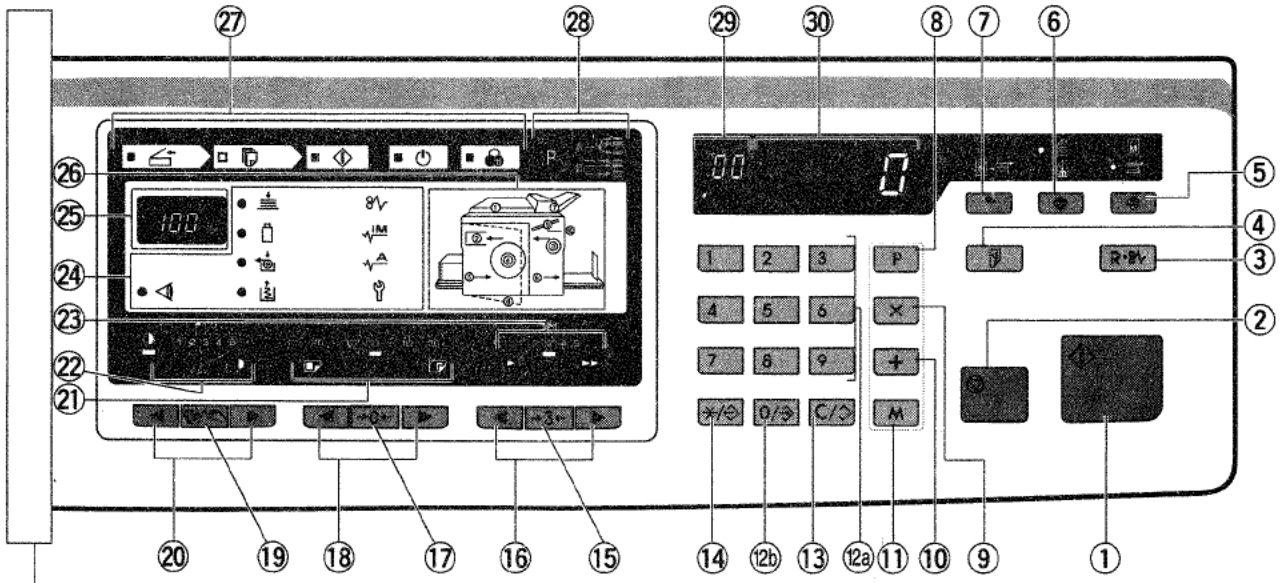
㉚ **Paper Receiving Tray (☞ p.17)**

㉛ **Paper Stop (☞ p.18)**
Stops printed paper ejected into the Paper Receiving Tray.

㉜ **Paper Arranger (☞ p.17)**
Helps arrange printed paper ejected into the Paper Receiving Tray.

㉝ **Paper Arranger Adjustment Knob (☞ p.17)**

The Control Panel



Main Control Panel

① **START Key [◇]**
Starts printing or making a master. The indicator is lit "GREEN" when the key is active. This key is also used to resume operation after troubleshooting.

② **STOP Key [⬡]**
Interrupts printing, and cancels confidential feature.

③ **ALL RESET Key [R·↺] (☞ p.32)**
Returns all settings to initial status. This key is also used to clear error displays after troubleshooting.

④ **TEST PRINT Key [ ] (☞ p.25)**
Prints a test print from the current master to allow you to check print quality, printing position and so on.

⑤ **MASTER-MAKING/PRINT Key [/]**
Switches between Master-Making and Printing operations. Normally, selection is made automatically according to the current process.

⑥ **LINE/PHOTO Key [/] (☞ p.24)**
Switches the current processing mode among Line, Photo and Duo. The indicators light according to the selected mode.

⑦ **AUTO PRINT Key [+] (☞ p.26)**
Automates the process of master-making through to printing. The indicator lights when the feature is active.

⑧ **PROGRAMME Key [P] (☞ pp.37-41)**
Provides access to programmed grouping of prints.

⑨ **× Key (☞ pp.37-41)**
Use when making program settings.

⑩ **+ Key (☞ pp.37-41)**
Use when making program settings.

⑪ **MEMORY Key [M] (☞ pp.42-45)**
Provides access to the Memory features.

⑫a **Print Quantity Keys (0 to 9 Keys)**
Use these keys to enter the number of copies to be printed, or to enter other numeric values.

⑫b **0/SAVE Key [0/→] (☞ p.43)**
Use to store settings in memory.

⑬ **C/ERASE Key [C/◇] (☞ p.45)**
Cancels the number entered and resets the Print Quantity Display to zero. Also erases contents of memory.

⑭ **✳/CALL Key [✳/◇] (☞ p.44)**
Use for memory recall.

⑮ **PRINT SPEED CENTRE Key [→3←] (☞ p.31)**
Returns the print speed to the standard setting.

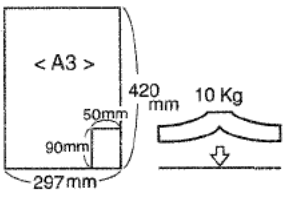
⑯ **PRINT SPEED Adjustment Keys [◁ ▷] (☞ p.31)**
Adjusts print speed (on a 1 to 5 scale).

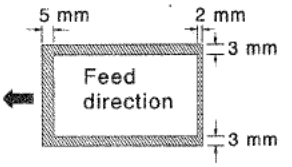
Originals

Size and Weight

Using the Platen Glass

The Platen Glass can be used to print from bound originals such as books or sheet originals or to print from originals that have an irregular shape or size. You can place originals from 50 x 90 mm (business card) to A3 on the Platen Glass. The weight of bound originals should be 10 kg or less.
The Platen Glass can also be used when the original is not recommended for use with the ADF.
The margins indicated on the figure to the right are required for the original.
If necessary reduce the original so that it fits inside these margins.





NOTE
- If an original is wrinkled, curled, or creased, flatten it thoroughly so that it can be pressed directly onto the Platen Glass during processing.
- If correction fluid or glue is used on an original, make sure that it is dry before placing the original on to the Platen Glass.

Using the ADF

You can use the ADF(Automatic Document Feeder) to feed automatically up to 50 original sheets from A6 to A3 size.The weight of the original sheets should be between 50g/㎡ and 110g/㎡.

NOTE **Use the Platen Glass when printing the following originals:**
- Patched or worn originals
- Wrinkled, curled, folded, or torn originals
- Transparent originals (such as tracing paper or OHP transparencies)
- Chemically treated originals (such as thermal or carbon paper)
- Originals with correction fluid or glue
- Extremely thin originals (less than 50g/㎡)
- Extremely thick originals (greater than 110g/㎡)
- Heavy drawing paper
- Bound originals
- Originals with staples or clips

Guides for Selecting Processing

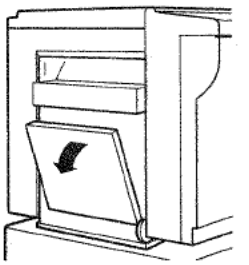
You can use two kinds of image processing modes to produce printed copies according to the contents of the original.

- LINE/PHOTO Key (/) - ☞ **p.24**
  - LINE [ ] For ordinary documents
  - PHOTO [ ] To reproduce different shades of photographs or half-tone images.
  - DUO [/] To reproduce photographs or half-tone images clearly without deteriorating line sharpness.

Setting Up Your RISOgraph

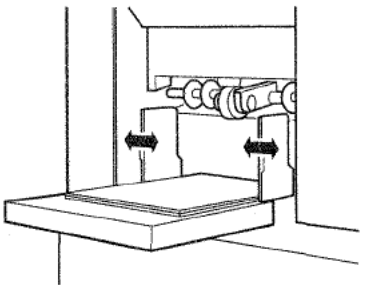
Setting Up the Paper Feed Tray

1 Open the Paper Feed Tray.



2 Load the printing paper and slide the Feed Tray Paper Guides to fit the paper width.

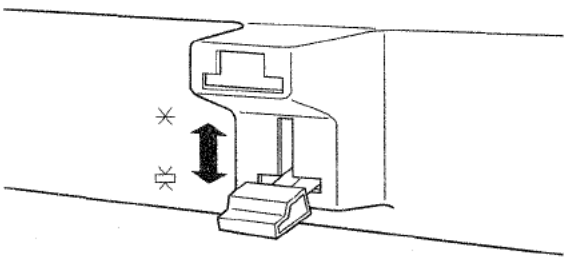
Important!
Do not mix printing paper of different sizes.



3 Set the paper feed pressure.

Position the Paper Feed Pressure Adjustment Lever at either ✳ (Normal) or ✳ (Card), according to the paper to be used:

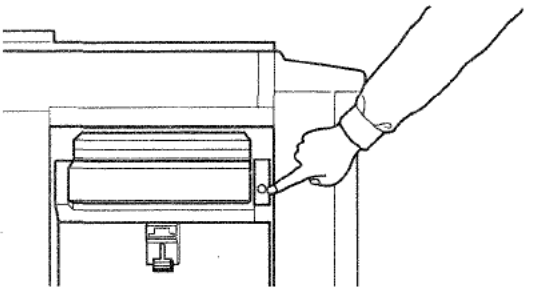
- ✳ (NORMAL) Standard paper
- ✳ (CARD) Thick paper such as drawing paper or smooth paper



Adding or Replacing Paper

If you want to add paper or use paper of different size during printing, lower the Paper Feed Tray so that you can load the paper easily.
To lower the Paper Feed Tray, hold down the Feed Tray Down button.

Important!
Do not mix different paper sizes in the Paper Feed Tray.

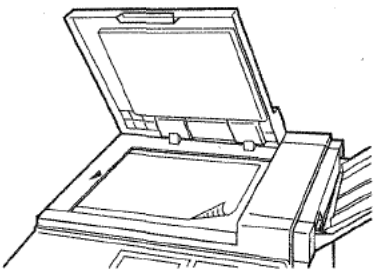


Basic Processes

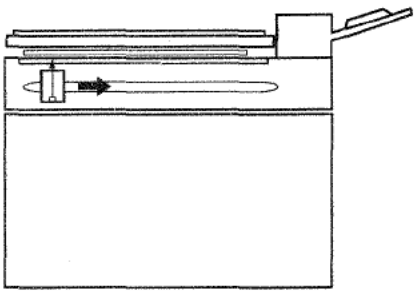
The basic processes of your RISOgraph can be divided into two stages: making a master of an original (master-making), and then printing copies from the master. The machine has been designed so that these two processes flow smoothly from one to the other, with the current action shown clearly in the display.

Master-Making

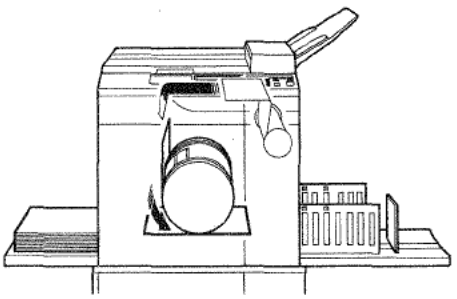
When you make a master, an original is scanned to create a master and the master is wound around the Drum Unit.



1 Set an original in place.



2 Scan the original.

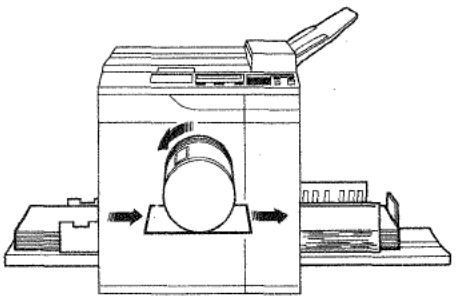


3 Create a master.

The master is loaded on the Drum Unit and a test print comes out.

Printing

When you print, the Drum Unit rotates to print the specified number of copies.



4 Enter the number of copies you want.

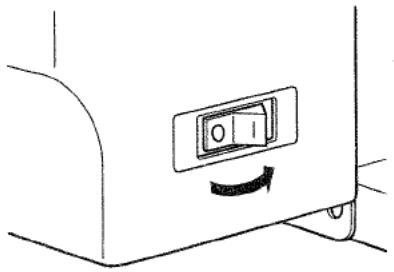
5 Start printing.

Basic Operation

1 Turn the power switch ON.

The power switch is located on the lower right side of the machine.

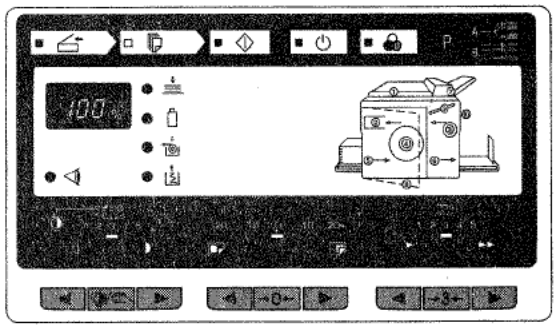
I	—	ON
O	—	OFF



2 Check the settings on the control panel.

When the power is connected, the control panel indicators show the initial settings.
Make any necessary changes, such as reproduction ratio and processing mode.

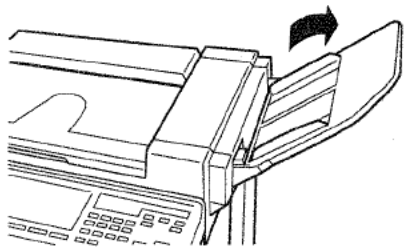
Holding down the R·☆ (ALL RESET) key longer than one second returns the control panel to the initial settings.



☞ **p.32** .....Return to initial settings.
☞ **p.48**.....You can customise the initial settings.
☞ **p.43, 44**....Frequently used combinations of settings can be saved in memory for quick recall.

3 Open the ADF Tray.

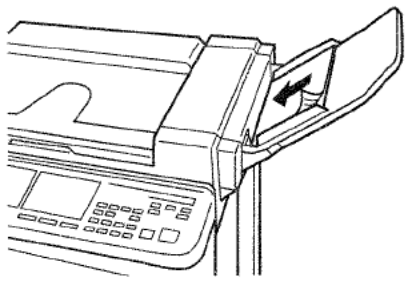
Rotate the ADF Tray, folded on the ADF Unit, by 180˚outward.



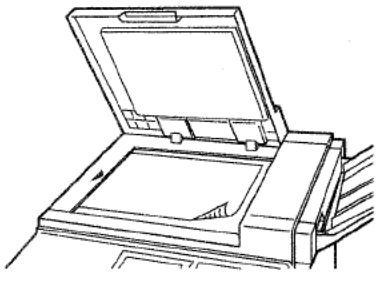
4 Place an original on the ADF Tray or the Platen Glass.

- If placing originals on the ADF Tray, adjust the ADF Original Guides to the width of the originals. Then insert the originals face down into the ADF Unit until they stop.The originals are automatically fed and set into place.

  NOTE A maximum of 50 originals can be set into place on the ADF Tray at one time.

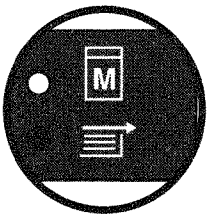


- If placing originals on the Platen Glass, open the Platen Cover and place an original face down. Position the original according to the indicators on the left-hand side of the glass.
  Close the cover, resting it gently on the original.



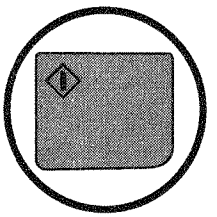
⚠ **Caution** **Do not force the cover down on top of a bound original placed on the Platen Glass.**

NOTE When an original is in place, processing automatically changes to Master-Making from Printing. The MASTER-MAKING indicator on the control panel lights up.



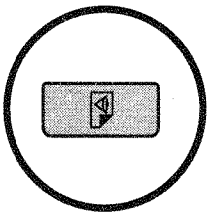
5 Press the START key.

After an original is scanned, a master is created. A test print is automatically printed to allow you to check the print quality, position, and density.



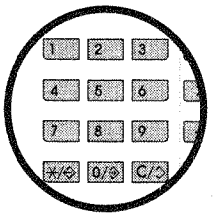
☞ **p.30** ....To change the position of the printed image, press the PRINT POSITION Adjustment keys, and/or turn the Left/Right Print Position Adjustment Dial.

If settings are changed, press the TEST PRINT key to check the results.



6 Enter the number of copies to be printed.

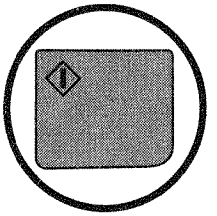
Specify the number of copies to be printed using the Print Quantity keys; the number is displayed in the Print Quantity Display.



NOTE If you enter a number incorrectly, press the C key to reset the Print Quantity Display to zero, then enter the correct number.

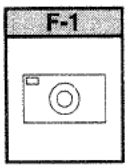
7 Press the START key.

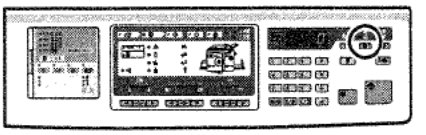
The specified number of copies is printed.



NOTE If printing stops and the ADD PAPER indicator flashes on the control panel, paper has run out in the Paper Feed Tray. Load paper into the tray.
☞ **p.16**

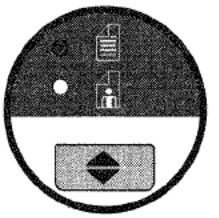
Photo/Half-Tone Processing





If an original contains photographs or half-tone images, or a multi-coloured original is used, select (PHOTO) or / (DUO) processing by holding down the LINE / PHOTO key. The corresponding indicator lights.

Since the image is processed graphically, degrees of shading are accurately reproduced.



PHOTO

Reproduces different shades of photograph or half-tone images most clearly.
Lines and texts become less sharp if they are included in an original.

DUO

Reproduces photograph or half-tone images clearly without deteriorating the sharpness of lines and texts.
This processing mode is recommended for multi-coloured originals or photo originals with sharp lines and texts included.

☞ **p.29** ....The scanning contrast setting should be checked and adjusted according to image density, if necessary.

NOTE
- If DUO is selected for light-density originals, lines might be broken. In this case, select (LINE).
- If LINE is selected to print an original that contains a darkly shaded photograph, on the other hand, copies might be smudged. In this case, select PHOTO or DUO.

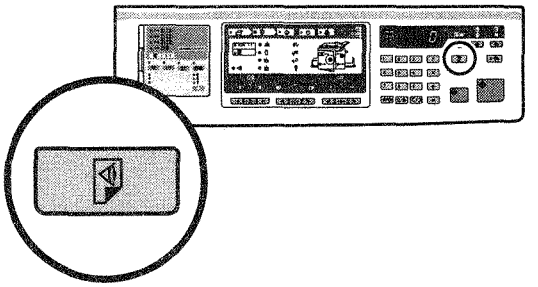
Holding down the R·ꕥ (ALL RESET) key longer than one second returns processing to the initial setting.

☞ **p.43, 44** ....The selected processing can be saved in memory for quick recall.
☞ **p.48** .....You can customise initial settings.

Producing Test Prints

If changes have been made to the print position and other settings, check the print quality by producing test prints.

By holding down the TEST PRINT key, you can print continuously.

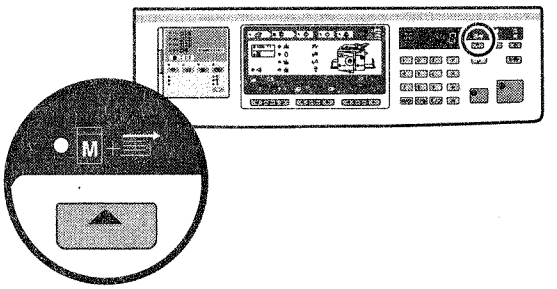


NOTE Test printing does not affect the quantity in the Print Quantity Display.

Quick Printing (No Test Print Check)

If you do not need to check print samples before making prints, press the AUTO PRINT key before pressing the ◇ (START) key to activate the Auto Print feature. This feature enables non-stop operation from master-making through printing.

NOTE If you need to check or adjust the print position, cancel the Auto Print feature by pressing the AUTO PRINT key again.

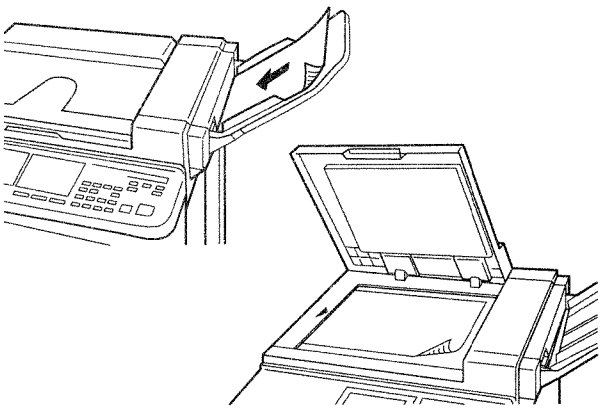


1 Press the AUTO PRINT key.

The Auto Print Indicator lights.

2 Set an original into place.

- Insert originals face down into the ADF Unit until they stop. A maximum of 50 originals can be placed on the ADF Tray at one time.

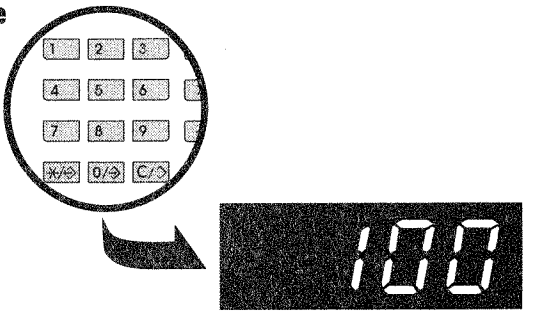


- Open the Platen Cover and place an original face down on the Platen Glass. Close the cover gently on the original.

3 Enter the number of copies to be printed.

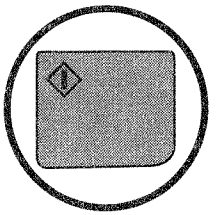
NOTE If you enter a number incorrectly, press the C key to reset the Print Quantity Display to "0," then enter the correct number.

If "0" is selected as the print quantity, the machine will not start.



4 Press the START key.

The specified number of copies are produced with an extra test print.

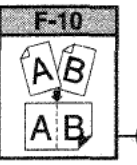


☞ **p.43, 44** ....The Auto Print feature can be saved in memory for quick recall.

Holding down the R·ℳ (ALL RESET) key longer than one second returns the Auto Print feature to the initial setting.

☞ **p.48** ....You can customise initial settings.

Printing Two Different Originals Two-Up



Using the Same Settings for Two Originals

You can make Two-Up prints from two originals by placing them on the Platen Glass side by side. If you wish to make Two-Up prints from more than two originals continuously, activate the Auto Print and Two-Up features and place the originals on the ADF Tray.

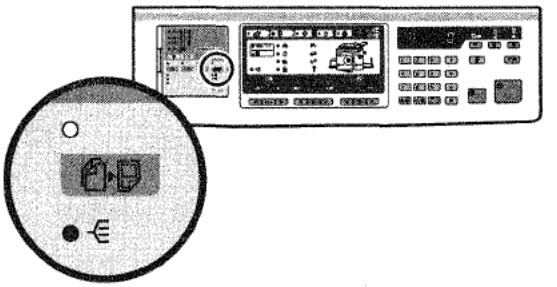
For the Auto Print feature, refer to the page 26.

If different pages of a bound document are to be used to produce Two-Up prints, change the initial setting of the Two-Up feature and then place the bound document on the Platen Glass.

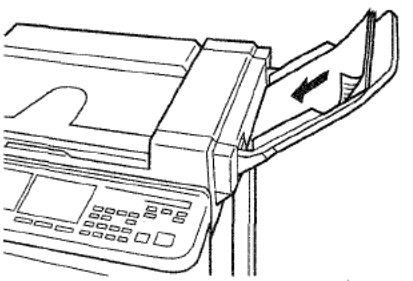
The machine scans the first page and then provides a 15 second period (a beep sounds) for you to place the second page. (Refer to the description on the next page for the procedure of changing the initial setting of the Two-Up feature.)

1 Press the TWO-UP key to activate the Two-Up feature.

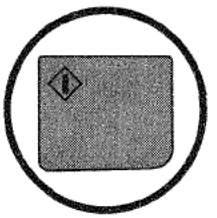
The Two-Up indicator lights when the feature is active.



2 Place originals face down on the ADF Tray.



3 Press the START key.



The originals are scanned and the Two-Up master is made.

The specified number of Two-Up prints are produced with an extra test print.

NOTE If more than two originals are placed on the ADF Tray, the Two-Up feature remains active.

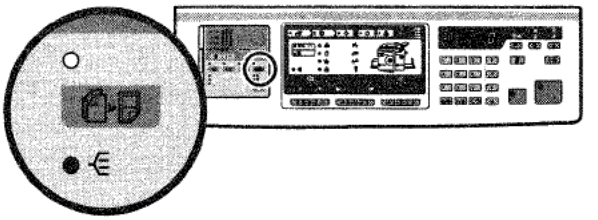
Changing Settings for One Original

When different settings are required for each original, place them on the ADF Tray individually. The machine scans the first original and then provides a 15 second period (a beep sounds) for you to place the second original.

NOTE If you press the ▽(STOP) key or do not place original during the 15 second period the test print will be produced with one side blank.

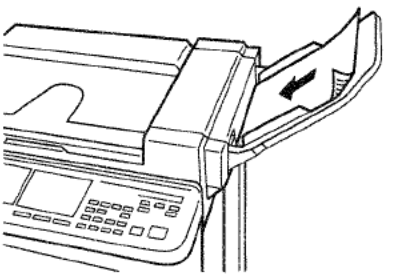
1 Press the TWO-UP key to activate the Two-Up feature.

The Two-Up indicator lights when the feature is active.



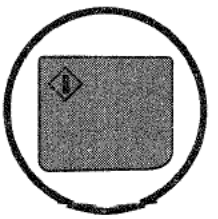
2 Place an original face down on the ADF Tray.

NOTE If bound documents are used for this purpose, change the initial setting of the Two-Up feature and then place the bound document on the Platen Glass.
(Refer to the description below for the procedure of changing the initial setting of the Two-Up feature.)



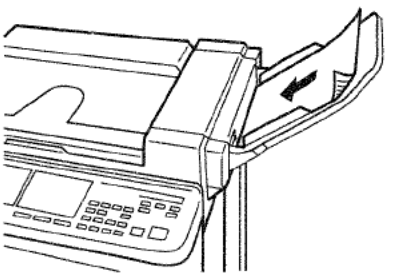
3 Press the START key.

After the first original is scanned, a 15 second beep sounds.



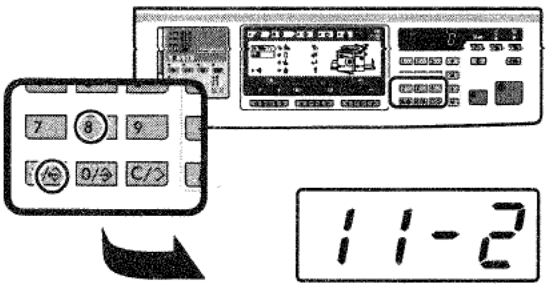
4 During the 15 second beep enter the settings for the second original, if necessary and place the second original on the ADF Tray (or the Platen Glass for the bound document).

After the second original is scanned, a test print is automatically printed.



Procedure of Changing the Initial Setting of the Two-Up Feature

1 Open the Initial setting selection programme and select the item No.11.



2 Press "2" to provide a 15 second interval for placing the second original on the Platen Glass.

☞ p.48

Specification

Processing	Book Top Digital Printer with Digital Scanner
First Print Speed	A3 original : 23 seconds A4 original : 17 seconds
Print Speed	5 selectable print speeds (60 to 130 copies per minute)
Scanning Resolution	300 dpi (300 dpi <Lateral> x 400 dpi <Vertical>)
Original Type	Bound documents or sheets
Original Size	- For the Platen Glass : 50 x 90 mm (business card) to 297 x 420 mm (A3) - In the optional ADF Unit : 100 x 148 mm (A6) to 297 x 420 mm (A3)
Original Weight	- For the Platen Glass : 10 kg or less - In the optional ADF Unit : 50 g/㎡ to 110 g/㎡
Paper Size	A6 to A3
Paper Weight	46 g/㎡ to 210 g/㎡
Image Area	B4 Drum - 250 x 353 mm A4 Drum - 198 x 286 mm
Paper Capacity	Feed : 1000 sheets (64 g/㎡) Receiving : 1000 sheets (64 g/㎡)
Optional ADF Capacity	50 Originals
Enlargement Parameters	141%, 122% and 116%
Reduction Parameters	94%, 87%, 82% and 71%
Features	· Print Speed control · Confidential mode · Two-Up printing · Programmed printing · Memory mode · Photo mode · Interface capabilities · Automatic idle · Scanning contrast adjustment · Automatic Ejection guide control
Print Colours	A wide range of colours including : Black, red, yellow, blue, green, brown, purple, bright red, medium blue, federal blue, grey, etc.
Optional Accessories	Colour Drum Units, TM2400 Sorter, Sheet Feeder SF3000, Job Separator Ⅲ, Key Card Counter Ⅲ and Computer Interface
Power Source Requirements	220-240 V AC, 50/60 Hz 3A
Weight	Approx. 105 kg
Dimensions (W x D x H)	1290 x 653 x 822mm (in use) 745 x 653 x 705 mm (stored)

NOTE The specifications are subject to change without prior notice. Please acknowledge that the illustrations and descriptions in this manual may differ from the actual machine, due to the change in specifications.

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